No. 3 April, 1913. Vol. VI.

Bulletin

(OF THE)

Ontario Hospitals for the Insane

A Journal Devoted
to the interests of
Psychiatry in Ontario

Printed by Order of the Legislative Assembly

FOR THE DEPARTMENT OF THE PROVINCIAL SECRETARY.

Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty.

Every medical practitioner in Ontario is invited to interest himself in the success of the Hospital for the Insane in the district in which he resides. Every Superintendent realizes that the successful results aimed at in the modern treatment of the Insane can be more readily secured by enlisting the co-operation and sympathetic support of the medical men who were formerly the physicians to the patients in their homes. The family Physician naturally watches with interest the course of the hospital treatment and should consider himself an honorary member of the visiting staff of the hospital to which his patients are sent for treatment.

PROCEDURE TO SECURE ADMISSION OF PATIENTS.

The Provincial Secretary desires that all cases that are likely to be benefited by treatment in a Hospital for the Insane should be admitted with the least possible delay.

(1) Where the property of a patient is sufficient, or his friends are willing to pay the cost of the Medical Examination, the family Physician should apply directly to the Medical Superintendent of the Hospital for the Insane, in whose district the patient resides, for the necessary blank forms. These being secured, they should be properly and fully filled in, dated, signed in presence of two witnesses by the medical men in attendance. They are then returned to the Hospital, and if satisfactory, and there is accommodation, advice will be sent at once to have the patient transferred.

(2) Where the patient has no property, and no friends willing to pay the cost, application should be made to the head of the Municipality where he lives, who, after satisfying himself that the patient is destitute, may order the examination to be made by two physicians, and a similar course to the above is then followed. The Council of the Municipality is liable for all costs incurred, including expenses of travel.

(3) Where the patient is suspected to be dangerously insane, information should be laid before a magistrate, who may issue a Warrant for the apprehension of the patient, and if satisfied that he is dangerously insane may commit the patient to the custody of someone who will care for him, but not to a lock-up, gaol, prison or reformatory, and notify the Medical Examiners. The Magistrate should then send to the Inspector of Prisons and Public Charities, Parliament Buildings, Toronto, all the information, evidence and certificates of insanity. The costs incurred by this method form a charge against the County, City or Town in which such patient resided.

Voluntary Admission.

The Superintendent of a Hospital for Insane may receive and detain as a patient any person suitable for care and treatment who voluntarily makes written application on a prescribed form, and whose mental condition is such as to render him competent to make application.

A person so received shall not be detained more than five days after having given notice in writing of his desire to leave the hospital.

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The Bulletin

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PROVISIONS FOR THE RECEPTION AND TREATMENT OF THE POOR OF GLASGOW, SUFFERING FROM MENTAL DISEASE.

By J. M. Forster, M.D.

Medical Superintendent, Hospital for Insane, Toronto, Ont.

During a recent visit to Scotland it was my privilege to devote a few days to the inspection of the organization existing in Glasgow for the care of the pauper insane. A brief account of what was observed may be of interest to the readers of the Bulletin.

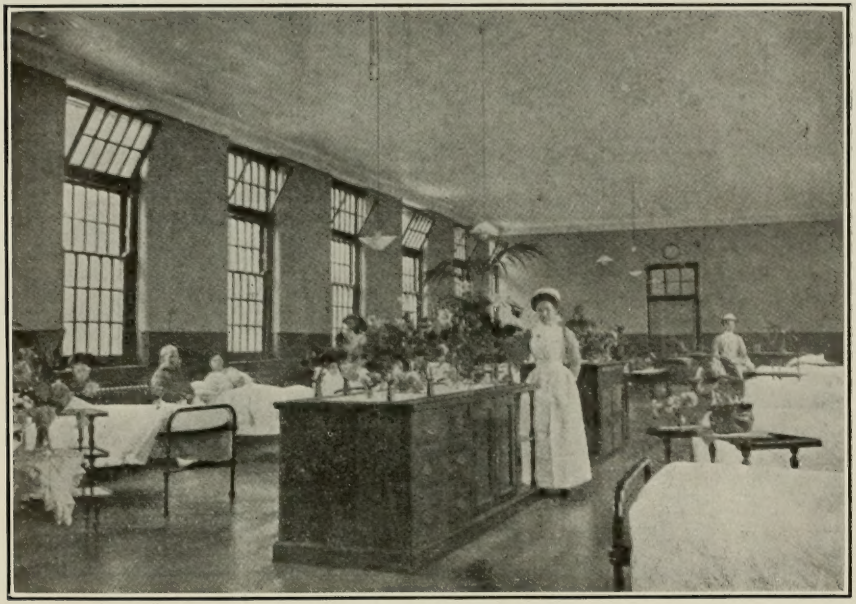
The whole of Scotland is divided into parishes for its poor-law and lunacy administration, and the Parish of Glasgow embraces the larger portion of the Municipality of Glasgow having on the 15th of May last a population of 570,000. Poor-law and lunacy administration are both under one authority, viz.: Glasgow Parish Council and Glasgow District Board of Lunacy which statutorily two bodies consist each of the same members. Mr. Motion, the Inspector of Poor is also clerk to the District Board of Lunacy. It is the duty of the Parish Council to make provision for the medical examination of supposed insane patients, for the removal to asylums

of persons certified to be insane and for the maintenance of patients in asylums. The combination of the two functions under what is in practice one body with one executive official, viz.: the Inspector of Poor and Clerk to the District Board of Lunacy, secures simplicity and uniformity of administrative arrangements. The mode of procedure is as follows: When intimation is received by the Inspector of Poor that a person is in need of attention on account of mental disorder, he immediately notifies the certifying physician in Lunacy who forthwith visits the patient. After medical examination the patient is removed by the Inspector's assistants either to the observation wards or the asylum as the medical officer directs. No patient is removed without prior medical examination. Patients removed to the asylum are duly certified to be insane, but patients removed to the observation wards are not placed under any certificate implying insanity, and they are under no compulsion to go to the observation wards. (The above is largely copied from the Annual Report for year 1912 of Dr. John Carswell, the certifying physician in Lunacy, as it so clearly explains the organization.)

I had taken the precaution to write Dr. Carswell of my proposed visit and upon telephoning from the hotel he had his plans made for me and the programme started almost at once. This was begun by a visit to the observation wards of which he is in charge.

These two wards, one for men and the other for women, are situated in the Eastern District Hospital and are in a building of the pavilion type being two storeys high. The upper storey is occupied by the women and the lower by the men.

There is accommodation for 25 patients on each ward; 3 single rooms, general ward for 16 patients, opening at the end into a smaller ward for six beds. There are no wire screens or bars on the windows, which open at the top for ventilation as in general hospi-



Female Ward

tal construction, a feature unattended yet by accident. The ward is so arranged on each side, there is a bed between each pair of windows, thus providing for ventilation and light. Ample floor space for each bed is one of the principles insisted upon by Dr. Carswell as being conducive to the patients' comfort, rest and sleep.

The observation wards are administered by the Hospital as are the other wards, and the nurses are taken from the general staff of the Hospital periodically. The medical care of the patients is directed by Dr. Carswell and his senior medical assistant.

My first visit was made at quite an unusual hour and the wards were found as quiet and orderly as any general hospital ward. The doctor's attention was attracted by a newcomer, an old lady who had been picked up on the street by a policeman, wandering about in a state of mental confusion and unable to tell where she lived. It was his duty to take her to the station, notify the Inspector of Poor who sent the examining physician to see her, and upon his report she was removed without delay or incarceration, to the observation wards. The next day she was taken to her home again by her relatives. Later that night, Dr. Carswell called for me, saying that he had just received notification of a case. Going with him, we found a young man taken acutely ill with mental disease in his workshop being held down by his comrades. He needed immediate care and on the Doctor's report was removed at once to the observation wards, where he was found the next morning resting nicely. Thus the work moves along, and it is interesting to note to what extent this reaches.

The following shows the number of cases dealt with during the year:

	M	F	Total
Remaining in May 15, 1911	20	25	45
Applications during year	584	556	1140
	604	581	1185

Certified Insane	270	305	575
Not Certified	312	251	563
	582	556	1138
Remaining in May 15th, 1912	22	25	47

During the year ending May 15, 1912, there were 1138 cases dealt with: 582 being males and 556 females. They were provided for thus: 333 were certified to be insane and were removed direct from their homes to the asylum; 242 were treated for a time in the observation wards and subsequently certified insane and removed to the asylum; in all 575 patients were certified insane. 454 patients were treated in the observation wards and were subsequently discharged recovered, or improved, or died. In all, 563 cases were not certified which number includes 109 cases in which it was not necessary to remove these patients either to asylum or observation wards. Put in Tabular form the results are as follows:—

Certified Insane.

Removed direct from residence to asylum	333
Transferred from observation wards	242
Total certified insane	575

Not Certified Insane.

Treated in observation wards	454
Not insane, applications withdrawn, cases taken over by other parishes	109
	563
Total cases dealt with	1138

As has already been explained patients admitted to the observation wards are selected by the Examining

Small End ward for Male Patients

Physician from among the persons reported to the Inspector of Poor as in need of special care on account of mental disorder. They are not certified as insane persons but a certificate is granted similar to those in use for Poor Law Hospitals. The certifying physician is required to state the grounds that have led him to conclude that the patient is suitable for treatment in the observation ward.

The local Government Board issues the following instructions: "The Board feels that a wide discretion must be left to the Medical Officer in charge of these wards, and to the Medical Officers signing the certificates of admission. No doubt there sometimes will be diversity of opinion as to whether a patient sent to the observation wards should not more properly have been sent to the asylum as a certified patient. In such cases the consideration to be kept chiefly in mind are the immediate cause and the probable duration of the mental disturbance. As a general rule it is not intended that cases shall be kept in an observation ward longer than six weeks. It is difficult to limit or specify exactly the type of case for which observation wards are suitable but the following may be mentioned:

(*a*) When the mental symptoms are a sequel or accompaniment of diseases that ordinarily terminate within a definite time, and especially the likelihood of the speedy disappearance of the symptoms of mental disturbance.

(b) Where, although the mental symptoms would seem to indicate insanity, the medical officer is clearly of opinion that such symptoms are likely to be of short duration.

(c) Where the patient's mental state gives rise to apprehension, but where the symptoms are not sufficiently marked to enable the certifying physician to affirm either sanity or insanity.

(d) Where the mental disorder is associated with alcoholic abuse.

(e) Senile cases where there are temporary symptoms of mental derangements which make it undesirable that the patients should be treated in a general hospital ward.

(f) The presence of the following conditions should be regarded as contra-indicating suitability for such wards:

(1) Homicidal tendencies.
(2) Dangerous violence.
(3) Acute and persistent suicidal tendencies.
(4) Long established insanity, or known existence of chronic insanity."

The organization provides immediate care and treatment for all mental disorder. A Medical Officer familiar with all the Institutions of the Parish Board visits the patient and decides at once what provision shall be made for the patient, reports accordingly to the Board, and makes out the required certificates in all cases of the pauper class.

SOME OBSERVATIONS ON INSTITUTIONS AND METHODS FOR THE FEEBLE-MINDED.

W. C. Herriman, M.B.,

Medical Director, Hospital for Feeble-Minded, Orillia, Ontario.

At Vineland, New Jersey, is located the New Jersey Training School for Feeble-Minded Boys and Girls, under the superintendency of Professor E. R. Johnstone. Although this is not one of the oldest institutions for the feeble-minded in America, it has by its energetic propaganda in the cause of the feeble-minded taken its position amongst the foremost of such institutions to be found anywhere. There are about four hundred patients in residence, pupils they are called, of all grades, the higher grades being largely in evidence.

Vineland was not formerly strong on its intramural medical staff, but being favorably located near Philadelphia, it has been exceptionally strong in its consulting staff. Some of these physicians have gone to Vineland for various periods of time, and with one or more assistants have pursued certain lines of research, notably Dr. W. S. Cornell, Director of Medical Inspection of Schools in Philadelphia, and author of "Health and Medical Inspection of School Children." A great deal of material found in his excellent volume is based upon research work done in Vineland. It was felt, however, that the work was much hampered for lack of facilities to carry on uninterruptedly the various lines of special work, and this has resulted in the gradual establishment of a series of laboratories.

The institution as a whole has been conducted as a teaching institution, directed by teachers, with a professor at the head, and there is everywhere predominant the atmosphere of a teaching laboratory.

For some years the psychological side has been prominent, as the well-known contributions of Dr. Goddard testify. His name no longer belongs to Vineland only, but to the whole broad field of psychology. A specially equipped laboratory for bio-chemical study has been a short time in operation, with Dr. A. W. Peters in charge, and more recently Dr. William J. Hickson has been added to the staff and will conduct a laboratory for research in pathology and the various branches of medicine relating to psychology. It is one of the most encouraging features in the whole field of the modern problem of defective humanity that there are institutions so far-seeing as to establish the means of research, and, at no small expense, to place trained men in charge. Here, with the clinical histories of hundreds of the feeble-minded and abundance of material at first hand, these men are thrown into immediate contact with the problems. Perhaps sensational announcements need not

be looked for. Perhaps any result may seem slow of achievement, for necessarily much barren ground must be worked. Such is the experience in all important research. We may confidently expect, however, that in due time announcements of far-reaching importance will sift out from this workshop.

The practical nature of the work at Vineland is evident in many directions. The large and excellent garden, the extensive hennery, the dairy and other industries are the fruits of the training of the children along industrial lines, and in such various departments the higher grade children find their permanent occupation.

Though Vineland aims to be practically industrial, the more artistic side of the minds of the children is not neglected, as one is convinced after seeing a very creditable production of Maeterlinck's drama "The Blue Bird" put on the stage by the pupils. Some such piece is occasionally presented as a means of pleasurable entertainment, and at the same time a training exercise of importance.

A number of articles made in the school are offered for sale to the occasional visitor who may wish to buy. A record is kept for each child of the estimated value of each article made by him, but no regular system has been tried for disposing of this work as a commercial product.

The New Jersey State Institution for Feeble Minded Women.

This institution is also located at Vineland, N.J., and had for its original purpose the protection and training of women of child-bearing age. From a small beginning it has grown to be an important institution, and under the superintendency of Dr. Madeline Hallowell, reflects her enthusiasm at every turn. The various well arranged departments under the direction of industrial instructors, give training in the domestic occupations. Each year sees the production of a large amount of

dainty material in almost every branch of ladies' handiwork. This is offered for sale to visitors, especially on "Annual Day", when the institution is "At Home" to friends from near and far.

The elaborately equipped gymnasium shows the importance that is placed upon correct physical culture, while the large and well trained orchestra is a revelation of submerged musical talent. The Operetta "Flower Queen" was here beautifully staged, and though with songs and choruses, many of them quite sustained, it occupied about two hours, and was accompanied throughout by the girls' orchestra, the whole production would have done credit to a school of normal children.

When one considers that not only throughout the institution, but actually appearing in such a performance there are always low and middle, as well as high grade children, it is a matter for sincere congratulation that so much has been accomplished.

This attention to the aesthetic side of life in the institution keeps a pleasant interest awakened, especially in those of the higher grade, and by this means a spirit is kept abroad which prevents the daily round of work becoming laborious or depressing.

Here one is interested in finding also a nicely equipped laboratory for pathological work and a system of records of family history and kindred information being kept in such a way as to be an available contribution to science.

Massachusetts School for the Feeble Minded at Waverley, Mass.

This is an ideal institution. There are about fourteen hundred inmates of whom about three hundred reside at some distance from the main institution on a large tract of land known as "The Templeton Farm Colony." Here, residing in small residential groups, these boys lead a fairly independent existence, raising by their labor enormous quantities of vegetables, apples, &c., for use

by the institution. As there is a great variety of work in a colony of this sort, we find here various grades of the feeble-minded suited to the more or less complicated character of the different occupations. A large proportion are from the middle and lower grades who have been trained to certain manual and industrial work, but who cannot read or write. About 25 per cent. are of the moron type, the high grades, and have profited by literary instruction, as this term is construed in an institution for the feeble-minded, that is to say, they may have some knowledge of figures and they can read and write. The added joys of these facilities bring a great deal of pleasure into their lives.

At the main institution are the special departments of teaching and training where, in addition to five school teachers, about twenty special instructors in physical training, music, domestic occupation, sloyd and various manual exercises prepare the children for that institutional occupation to which they are best adapted. Practically every child is given a chance to do something in the way of physical and mental exercise looking to his improvement in as high a measure as his natural endowments will permit.

At the outset we have here an original type of school room in the open air—a small instruction yard where even the most unfortunate child rambling about will find something to arrest his attention and elicit his feeble co-operation and perhaps fit him for the more advanced training later on. Those who have sufficient mentality to respond to the exercises for improving the special senses and cultivate some degree of manipulative dexterity, such as cutting, sewing and braiding rags for mats, soon enter the field of useful occupation.

At Waverley a striking feature is the plan by which those attending the school department spend only half the day in actual school exercises, the other half being divided between outdoor exercise and instructed occupation in some industrial department.

Here too the effort is made, with much success, to avoid the monotony of one continuous occupation. The children are in classes according to the character and degree of complexity of the work they are capable of performing. One class may work two hours in the laundry and then two hours in the shoe shop, each succeeding class taking up the work where the preceding one dropped off. Thus by means of careful grading and classification, and a somewhat complicated time table, which, however, seems to work with clocklike precision, each grade is provided with work suited to its mental capacity and with sufficient diversity to maintain a lively interest.

Efficiency in the various departments is kept alive by every facility. For the teachers a library is maintained with over a thousand standard works on kindergarten and primary work, object teaching, physical and manual training, and other subjects related to the school department. In every industrial department there is a shelf of books, kept up to date by frequent additions, relating to the technical features of the special work of the department, and always a scrap book which one can see is being constantly added to. It is all indicative of the general spirit which is caught by the children, especially the higher grade or moron classes, whom one can see taking an evident pride in their progress and achievement.

The Dietary has been studied at Waverley with a view to obtaining a correct balance in the ratio of the tissue building elements to the heat and energy producing factors. Starting out with the estimated maximum requirements of Atwater at 3500 calories daily with a ratio of 1 to 6 and the minimum requirement of Chittendon at 2000 calories with a ratio of 1 to 10, a dietary was devised which ran 3300 calories and a ratio of about 1 to 8, and the bill of fare in actual use is based on this.

One day it consisted of the following:—

Breakfast—Oatmeal, Milk, Sugar, Bread, Butterine and Hash.

Dinner—Roast Pork, Gravey, Potatoes, Maccaroni, Horse Raddish, Bread, Butterine and Rice Pudding.

Supper—Cereal, Milk, Syrup, Bread, Butterine, Hash, Tea or Cocoa, Rice Pudding.

The correct amounts of the various articles of diet to secure the proper balance were estimated with the assistance of representatives from one of the state scientific institutes. There is a noticeable tendency in many of the institutions in the various states to avail themselves in this way of the services of specialists.

At Waverley the various methods recently brought into prominence as the "Montessori Method" were early elaborated and adapted to the special requirements of the feeble-minded. Doctor Montessori has probably arrived at certain conclusions in a more or less independent way. She does not appear to have been aware at the time that similar ground had already been worked over and similar methods tried in America. In fact the same basis, established by Seguin, from which Doctor Montessori started, has been the common basis for work in the institutions for the feeble-minded in the United States and Canada.

At Waverley, where Dr. Seguin himself labored years ago, the work has been taken up more recently by Dr. Fernald, who evolved a system of training and observation, wonderfully complete alike in its conception and in the practical results obtained, but which might better be known as the "Waverley" or "Seguin-Fernald" Method.

It must be borne in mind that here, as in all institutions facing the problem of the feeble-minded, the end in view is always of the most practical nature, arts and crafts, and domestic accomplishments, though the more general education is not neglected in the case of that limited number where it may profitably be employed. The method, described by a number of writers throughout a scattered literature, and subjected to years of actual and successful trial in a number of institutions for the feeble-minded, have been graphically presented again in the

recent writings of Doctor Montessori, with, no doubt, some impression of her own personality.

Especially is she enthusiastic in her endeavor to apply the same principles to the normal child. Here, however, is a conflict of opinion, for while upon the one hand, whole flights have thrown themselves into the missionary work of introducing the method, upon the other, even Professor Henry W. Holmes, of Harvard University, who writes an introduction to the volume in which Doctor Montessori describes her method, suggests only an adaptation which may be used experimentally as a preliminary to the usual Froebelian system. Many other prominent educators also, while finding valuable features, fail to recognize in it a desirable revolution as applied to the education of normal children.

Wrentham State School, Wrentham, Massachusetts.

At Wrentham under the Superintendency of Dr. George L. Wallace, formerly Assistant at Waverley, a new state institution has been established. The ground is being newly broken for cultivation. The buildings are new, everything about it has an air of freshness. One soon perceives that in the general design, size and arrangement of various departments, and in the whole plan of training and instruction, the Waverley idea has been followed very closely. The little instruction yards have, if possible, been worked out even more completely than at Waverley. These instruction yards epitomize in a way the whole system of training. They are literally out-of-doors yards, for fine weather, but that there may be no interruption, inside accommodation with similar equipment has been provided for inclement seasons. Here the child begins with the simplest thing that a child can do. Possibly he is given a hammer to pound on a log, with the object that he shall accomplish any purposeful coordination.

These lads who here stumble along awkwardly over the ground while they carry stones from one pile to another, or it may be sticks of wood of varying lengths, arranging them in piles each length by itself (often now with the assistance of the nurse) will later on—in years to come—be found doing, not perhaps the more complicated work of the higher grade boys, caring for the horses, weaving artistic designs in mats, running the machines to knit sweaters and toques, or a host of similar occupations, but more likely working on the roads throughout the extensive grounds of the colony, shovelling coal, or still piling wood, performing some of the coarser manipulative work of the institution. The process of sifting the different grades suited to different occupations, begins here, for after the simple exercises already mentioned have been mastered, too complicated though even these are for some at first, there are sticks to be cut with small buck-saws on saw-horses of suitable size. These sticks must be cut to a scale and then suitably piled away. The hammers that were at first used only to pound with, are later used to drive nails, and by a little device they must be driven with some display of intelligence. So the requirements become gradually, very gradually, more difficult as the children pass on through the various departments, some reaching the limit at every level. That simply means that some lower or higher grade of occupation finds its permanent devotees. Thus the lower grade child being sifted out for the lower grade work, the higher grade child is reserved for the higher grade work. This makes for the greatest economy in labor, as well as for the greatest possible development of the child.

Elwyn, Pennsylvania.

The Pennsylvania Training School for the Feeble-Minded at Elwyn, Pennsylvania was established in 1852 and can claim to be a pioneer in this work. It early be-

came known for its teaching facilities under the zealous guidance of Dr. Kerlin, who upon his death was succeeded by Dr. Martin W. Barr, the former Assistant. Dr. Barr, whose work "Mental Defectives" is a standard, has made many contributions to the literature on the subject. The institution has grown to a population of about 1100, and is foremost in all the arts of instruction both of the school subjects proper and the carefully supervised industrial work. In one large room the walls are covered with glass cases of Natural History specimens giving the effect of a biological museum. Nature study has been found to create great interest in the children and is an excellent means for arousing their powers of observation and comparison. The complete printing outfit takes care of practically all the printing of the institution including the Annual Report. One large room is reserved for musical instruction, and here much attention is devoted to the brass band and other instrumental features. The work of the classes in sloyd is turned to good account in the manufacture of small articles for use on the wards and in the cottages. The weaving of the looms provides a large amount of material, and the sewing classes, in addition to taking care of the mending and other necessary work for the household, produce an abundance of beautifully made articles which we find arranged for sale in a bazaar on "Elwyn Day," the annual festival and At Home of the institution.

Scientific investigation has been prosecuted, especially in the Anthropological Laboratory, where exhaustive research has been made regarding the stigmata of degeneration, and other physical and etiological characteristics. An elaborate system of measurements is made and recorded on suitable forms, being part of the general research into the psychology and pathology of the mental defective.

In the above paragraphs no attempt has been made to speak of everything that is being done at each institution. There are some features that may be said to be common to all. Everywhere one finds the school extensively developed as the necessary introduction to efficient work in every industrial sphere. Everywhere one is impressed with the more or less self-contained character of the institution resulting from the presence of all grades of the feeble-minded. The impression deepens with observation that in such industrial colonies lies the solution of the many-sided question, "What can we do with the feeble minded?"

THE RELATION OF THE HOSPITAL FOR MENTAL DISEASES TO THE COMMUNITY.*

E. H. Young, M.B.,

Assistant Superintendent, Rockwood Hospital, Kingston, Ont., Professor of Psychiatry, Queen's University, Kingston, Ont.

The subject of Mental Disease has always been a source of anxious interest and curiosity to both the cultured and the general public. But if the interest and curiosity are great, the difficulty of obtaining a clear conception of the numerous perplexing problems to be solved, and the means by which this end may be accomplished is even greater; as a result this field of scientific enquiry is the one most dominated by unreasonable prejudices.

It is useless to disguise the fact that, even to-day,

* Read before the meeting of the Kingston Medical and Surgical Society, at Rockwood Hospital, March 31st, 1913.

psychiatry is, as a science and art of medicine, very young. The efficiency of its curative measures is in many ways behind that found in other branches of medicine. A great Italian scientist says that Psychiatry is one of the noblest of sciences, but one of the humblest of arts. Our efforts towards eliminating the direct causes of insanity are very limited, because of insufficient knowledge of the mechanism of its pathogenesis, and only persistent, conscientious investigations in laboratory and clinic will overcome this deficiency; such knowledge as we have for example, in mental disorders due to trauma, syphilis, exogenous intoxications and abnormalities of internal secretions is fully appreciated and applied in the various Hospitals for the Insane in this Province.

Fortunately therapeutic agencies are not limited to those which cure by eliminating the cause of the disease. Many mental diseases are curable spontaneously through the adaptive properties of the body, provided the development of the curative process, and the patient's life are not endangered by the excessive action of certain collateral symptoms, such as exhausting motor restlessness, insomnia, abstinence from food, suicide, secondary infections, etc. In such cases the usual well known remedies directed towards counteracting the symptoms, tide individuals through afflictions which are curable spontaneously, and thus render possible a return to normal mental life.

This summary will serve to show how limited is the work of the psychiatrist in connection with the morbid process and its consequences; the results obtained, however, are sufficient to disprove the pessimistic statement of some, that the application of therapeutic measures in mental disease is always a hopeless task. Moreover, it will be seen that the indirect service which this science can render in practice is much more extensive. To one engaged in practical efforts for human betterment it is instinctive that knowledge should be applied. If the causes of certain forms of insanity are now known, if

certain forms of treatment can influence mental disease, it admits of no argument that in so far as these are within human control, a serious effort should be made to make the fullest possible use of such knowledge.

From this point of view it is unfortunate that the transfer to a suitable hospital removes the sufferer afflicted with mental illness from the observation of the community. The lessons which would be learned by each community, if its insane were cared for in its own sight, so to speak, would be exceedingly valuable; it would learn for instance that a large percentage of such patients are practically harmless, that mental diseases differ much in degree and kind, that they can be influenced favorably by appropriate treatment, and there would be a readier and fuller appreciation of any new light thrown by science upon the origin, nature, curability and prevention of insanity.

The improved recovery rate has had the effect of increasing public confidence in the administration of these institutions, and there is evidence of a readier disposition on the part of the medical profession and the public, to turn to them for help and counsel in all matters pertaining to mental medicine. One of the strangest chapters amongst the stories and traditions which make up the gossip of every hamlet is that about the man who "went crazy and had to be taken to the asylum," and if such a one later is returned to his home and to industrial efficiency, the event is looked upon as little short of the miraculous. Such a patient is the best possible agent for dissipating the hostility and mistrust of his community towards asylums. The treatment of such cases in their own homes by nurses trained in these hospitals contributes to the same end. Public addresses, articles in the press by experienced alienists, and the readier accessibility of the hospitals to the patients' friends, are other factors tending to bring the public into closer contact with the problems of insanity.

There are mental diseases which would shortly disap-

pear could the interest of society be sufficiently directed towards them, and timely measures adopted. General Paresis is one of the most deadly diseases; it attacks adults in the full vigor of life, individuals strong in body and mind, and who as a rule have reached the highest point of their social activity. The remote cause of progressive paralysis is syphilis, which is closely associated with prostitution, and therefore all remedies directed against the social evil also strike a blow against Paresis. In this connection I cannot do better than quote Adami: —"With a fuller realization of the frequency of these congenital (venereal) diseases, of the havoc these are playing upon individual lives, the misery, ill-health and ruin that they inflict, with the surer recognition of the presence and after-effects of what euphemistically we speak of as the contagious diseases, brought about by more exact methods of diagnosis, such as the Wasserman reaction, and the actual recognition under the microscope of the gonococcus and the spirochaeta pallida, we have during the last decade more especially, come to a realization of the hideous frequency of these diseases, and their ill-effects upon the innocent of the second generation. When it is accepted that at least half of gynaecological practice is due to gonorrhoea and its results; that a large proportion of the cases of infantile blindness is of gonorrhoeal origin; that, as demonstrated by the Wasserman test, practically all the cases of locomotor ataxia, and nearly all cases of General Paralysis of the insane are of syphilitic origin; when we know that most cases of multiple successive abortions are syphilitic, and recognize the puny miserable parodies of humanity doomed in most instances to an early death, that too often are the result of syphilitic disease in the parent; when we realize the preventable ills that follow in the train of these venereal diseases, I wholly agree that the time has come when we should no longer refer to these matters by circumlocution, when for the good of the coming generations we should openly wage war against

gonorrhoea and syphilis, and above all should, for the safety and welfare of our children, instruct them as to the dangers they must ward against, not merely on account of their own health and happiness, but for the sake of the generations yet unborn."

The group of psychoses collectively known as alcoholic insanities are directly traceable to alcoholism. In many others alcohol may be a contributing cause by diminishing the resistance of the brain to harmful external influences. There can be no doubt that all successful efforts to restrain the evil of intemperance whether these take the form of improved social conditions, legislative enactments or educational propaganda, will result in a corresponding lessening of the incidence of insanity. Many patients are annually brought to the doors of our asylums through the excessive use of morphine, cocaine and patent medicines containing habit-forming drugs. To prevent this exploitation of the weakness of human beings for profit, the most drastic prohibitions, and the most deterrent penalties can be justified on the ground of social defence and prevention.

The infantile cerebropathies are to a considerable extent the result of parental alcoholism and syphilis. But far more frequently the infections which arise in the first years of life, from filth, neglect and unsuitable alimentation, are the determining factors in producing the crowd of idiots, imbeciles and epileptics which encumber our public institutions and drain the resources of our public charities. Wherever measures favoring maternal feeding and providing the knowledge and means for carrying out scientific methods of artificial feeding have been adopted, there has been effected not only a notable reduction in the infantile mortality, but along with this, a diminution in the number of children physically and mentally deformed from the earliest infancy.

Another group of insanities, the Acute Confusional Psychoses are traceable to infections, exhaustion, overwork, auto-intoxications, abnormal puerperal or lacta-

tional conditions, etc. It is obvious that vast numbers of these are due to preventable causes.

Certain other forms of insanity are supposed to owe their origin almost entirely to psychic causes. The opinion is held by eminent alienists that these causes can be counteracted by adopting methods of education suitable to the individual, and by the cultivation of correct habits of thought. Dementia Praecox is by far the most frequent of all mental diseases which afflict the young. It is the "White Plague" of Psychiatry. Once established it is incurable, and unless proper treatment is instituted in the earliest stages irreparable dementia results. Within the past few years authoritative articles have appeared describing the early symptoms of this scourge, the ominous symptoms of its approach and also the characteristic mental make-up of the child foredoomed to develop the disease. Competent advice as to its prophylaxis has been given; heedless of these warnings parents, after transmitting to their children psychopathic taint, allow them to drift at haphazard into unsuitable vocations and educational courses with utter disregard of the nature of their psychical capital. Hence, instead of the satisfaction and mental enrichment which accrues when one is brought to the place where his best energies may be unfolded, they meet only the long continued irritation of dissatisfaction, mental depression and discouragement which is the inevitable result of maladjustment of personality to vocation and environment, and which is one of the most potent factors in the production of the mental sclerosis of Dementia Praecox. No system of medical inspection of schools in any large municipality is complete without the services of an expert psychiatrist, to whom the neurotic child can be referred for educational and vocational guidance, based on an analysis of his inner attitudes and proclivities—his psychical make-up.

The spectre of morbid heredity plays an important but secondary role as a cause of mental disorder, and its range is much more restricted than is usually supposed.

In the vast majority of cases one does not inherit insanity, but merely mental instability—a tendency towards insanity, which may lie dormant so long as the individual conserves his bodily health, indulges in healthful and temperate habits, and avoids unnecessary emotional strain. It is for the psychiatrist to anticipate the effects of evil heredity by advice as to the management of neurotic children, their education, their amusements and pursuits; thus much can be done to save them from the effects of the inherited weakness.

Generally speaking it may be said that every effort for improvement in the general public health, the control of infectious diseases, the securing of healthful conditions in home and school, in street and factory, all reforms in educational methods, every principle which tends to regulate social conditions and render them less harsh—in short all progress in civilization is a means of preventing insanity.

These being some of the causes of insanity, by what means shall this knowledge find its fullest possible application? There is a striking similarity between the position of tuberculosis a few years ago, and that of mental diseases at the present time. A movement for the prevention of any disease should be similar to that which has been so successful in the prevention of tuberculosis. Two distinct lines of action must be instituted; one, the education of the physician in methods of early recognition and treatment; the other, the education of the public as to the origin and modes of prevention of the disease.

Special hospitals separate from our large provincial hospitals to which any person can be taken unobtrusively for advice as to peculiarities of mental habits and other ominous symptoms of incipient mental disorder, undoubtedly constitute the best specific agency for the early detection and treatment of such diseases. At present these medical outposts do not exist in Ontario, and therefore their function must be performed by the existing institutions. Each of the three medical schools in

Ontario is affiliated, for purposes of clinical and didactic instruction in Psychiatry, with one of the Hospitals for Mental Diseases, the course is now obligatory, and is sufficiently extensive to insure a fair knowledge of the subject on the part of all graduates. Provision is being made for the admission of voluntary patients, and "out-patients" are encouraged to come to the hospital to receive advice free of charge. At Rockwood Hospital it has been the practice to invite the examining physicians to attend the staff conferences at which their cases are presented, but interest is hard to arouse, and in only a few instances has the invitation been accepted. It has, therefore, been arranged that one of the hospital staff give an address on the work of the institution, at each medical centre in the district. Although we have covered only half our territory already beneficial results are seen in increased interest in the hospital by the medical men, and by many new applications for entrance to our Nurses' Training School.

The movement for popular education as to the causes and modes of prevention of insanity proceeds upon the perfectly safe assumption that the public is unreasonable only when it is uninformed—that if people generally understand the facts, they will, to a considerable extent, adjust their lives accordingly. As one factor in this educational campaign the Committee on Mental Hygiene of the New York State Charities Aid Association has prepared suitable pamphlets which are being distributed through every form of organization willing to assist. The newspapers are being supplied from time to time with material stating and re-stating the essential facts, and the medical officers of the various State Hospitals are co-operating with the Society in arranging public meetings at which appropriate subjects are discussed. I believe that the time is ripe when a similar campaign should be inaugurated in Canada; if Psychiatry is to take its proper place as a part of preventive medicine, this matter should not be left to the sporadic efforts

of individual hospitals, but should be systematically organized and directed by a strong central committee, It appears to me that the Canadian Public Health Association might widen its range of usefulness by including mental hygiene amongst the branches of public health which it is promoting.

An important link between the hospital for mental diseases and the community remains to be described. Every alienist deplores the high percentage of cases which suffer from a recurrence of their malady soon after they are discharged apparently convalesent; after wasting the physician's time and skill and the hospital's expense for months many patients return as ill as before. A well-known alienist disputes our record showing an annually increasing number of recoveries, claiming that our institutions are being filled with their own discharges. The fact is that in these cases the mental break-down is but a symptom of certain conditions in the patient's environment, which the physician has failed to take into account, and which baffle his science and nullify his best efforts. Dr. Richard Cabot says that the average physician is used to seeing his patients flash by him like shooting stars, out of darkness into darkness. Maladjustment to home conditions, monotony, isolation, worry, overwork or lack of work, poverty, insufficient food, cheerless or insanitary surroundings, unhygienic habits—these are some of the problems which must be uncovered and solved; our patients must receive social, as well as therapeutic remedies, if the hospital's work is to be carried to effective completeness. The General Hospitals inaugurated a social service department to meet this problem; begun in 1905, in connection with the Massachusetts General Hospital, the movement has already spread to all large general hospitals on this continent. Several of the State Hospitals in the United States have also established similar departments, but only in connection with their out-door department.

Believing that an organized system of social service

would materially increase its usefulness, the staff of Rockwood Hospital determined to adopt the general hospital scheme in its entirety, since the beginning of this year one of our head nurses has been acting as field worker, visiting the homes of newly admitted and recently discharged patients in the vicinity of the institution; she examines and reports as to the condition under which the patient has been or is living and where necessary, assists the patient to remedy any conditions which predispose to illness. In order to accomplish this it is necessary to make the fullest use of the various social and economic resources of the community. It is too soon yet to consult our records for definite results of this scheme, but it appears so promising that we believe its introduction marks an important epoch in the evolution of this institution. The visits of the nurse are an important factor in removing the dread of the public towards "asylums." On account of the extra supervision, the necessary period of residence in the hospital can be curtailed, and the patient leaves the hospital with greater confidence when told that the nurse will visit him. It also enables us to continue treatment in the home of the patient and our knowledge of the cause of the illness and the results of the treatment will be much more reliable and definite than ever before, and we believe that by this means the number of readmissions will be greatly diminished.

From the foregoing general outline I trust that it has been made sufficiently clear that psychiatry in practice cannot be reduced to the simple study of the insane, and the manifestations of insanity; such a study is necessary, but by itself ineffectual and sterile. There is no doubt that all sciences have a reciprocal connection, and each advances by taking advantage of the progress made by others. Psychiatry more than any other science, presents numerous facets at which it comes into intimate contact with other physical, social and moral sciences; on all of these it imposes its special problems, from all it requests its special data. Therefore the alienist must, as much as

his individual capacity permits, take an active part in the cultivation of neighboring fields of work, in order to further the progress of his own. Until the psychiatrist awakes to the need of a close co-operation with those other agencies whose specific work it is to achieve the physical, social and moral betterment of mankind, his own efforts to stem the tide of mental diseases will be of little avail.

Some years of cordial co-operation with men and women who are striving to improve our public institutions for the care of the sick and dependent have given me a deep reverence for their nobility of spirit and the excellence of their achievement in ameliorating the distress of sickness, poverty and social maladjustment. Yet my experience compels the conclusion that, until they evolve some means of uncovering and modifying the social backgrounds of disease, until they devise a method of reaching the sick before their condition becomes hopeless, and until they adopt measures for carrying their educative influence beyond the narrow institutional walls into the homes of the people, our hospitals must stand as an expression of our good intention rather than of our business foresight or scientific acumen.

END RESULTS OF SURGICAL OPERATIONS UPON TWO HUNDRED AND FIFTY-ONE INSANE WOMEN.

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Surprising as it may seem, there exists in the minds of the laity and to a considerable extent in the minds of many medical practitioners, the belief that there is an intimate relation between insanity and diseases of the female pelvic viscera and especially of the ovaries. The frequent inquiries on the part of the patient's friends relative to the health of the pelvic organs and the number of cases admitted to the Hospitals for the Insane, in which ovariotomy has been performed, in the hope of curing the insanity or checking its onset, both offer practical testimony in support of this belief. In fact, it is not an uncommon thing for patients to be removed from the care of such institutions in order that surgical interference may be instituted in the hope of relieving their mental trouble.

Between the years 1895 and 1901 inclusive, there was performed in the Hospital for Insane, London, a series of gynaecological operations for the purpose of ascertaining the influence that such work might have upon the mental condition of patients presenting disorders of the genitio-urinary tract. It is the purpose of this article, after a lapse of ten years, to review these cases and to point out, in the light of their subsequent history, what has been the influence of gynaecological surgery as a therapeutic factor in the treatment of mental diseases.

The fact that there were only four deaths out of a total of two hundred and fifty-one cases, is a high tribute to the technique and skill in surgical detail of those engaged in the work. Extreme care in diagnosis was

exercised in the consideration of every case and in no instance was an operation undertaken until the patient had been examined by all the staff and at least one medical man not connected with the institution. As a result, physical improvement or recovery crowned the efforts of those concerned in this work and the patient was, accordingly, made more comfortable, more amenable to management, and better fitted to take her part in the daily routine of institutional life. Such results show that surgery has a place within, as well as without, these institutions and should offer sufficient answer to those who would deny our patients the blessings that modern surgery can bestow.

It is, however, not the physical results that I wish chiefly to discuss, but rather the mental. In the accompanying tables I have tabulated a list of the cases operated upon, in which is shown the date of admission and the date of operation, the disposition of the patient, whether she was discharged, died in the Institution or is still in residence; the length of time between the operation and her discharge from the care of the Institution; the character of the operation, and finally a column devoted to general remarks.

A few words of explanation regarding the table and the terms employed, may not be amiss. It will be noticed that I have disposed of every case either as "recovered" or "unimproved," deeming it inadvisable to describe the termination of any case by such terms as "quieter," "less destructive than formerly," "somewhat improved," etc. as such expressions are generally loosely applied and are without meaning other than to the person using them. As it is desirable to make our conclusions from this series as practical as possible, and as it is evident that the value of gynaecological surgery in its relation to mental disease, is to be determined by its success in restoring the individual to her place in society, it must therefore be made clear what relation the mental recovery bears to the operation. If a woman improved in a reasonable

time after the operation, left the institution and again established her place in society, such a case is put down as "recovered." If, on the other hand, the patient is still in residence, if she has died in the Institution, or if between the operation and the recovery there was a period of time, out of proportion to the interval which should have reasonably elapsed, were the recovery due to the operation, then such a case is entered as "unimproved."

Again, if a patient, after her discharge has had several subsequent admissions of similar duration and character to the primary attack and is discharged without an operation, she is put down as "unimproved" on the ground that, in the light of her after history, it is not reasonable to hold that her recovery in the first instance was due to the operation. To state briefly, the term "unimproved" as used in this table simply means that events have shown that the outcome of the case was uninfluenced by the surgical interference.

Some observers have held that the ratio of recoveries in the various cases bears a more or less direct relation to the importance of the organ operated upon. The late Dr. Bucke, then Superintendent of this Institution, in an address at Richmond, Va., before the American Medico-Psychological Association, May 22-25, 1900, said, "Diseases of the ovaries and tubes have the most influence upon the mental health of the patient, that is, the most influence in the causation of insanity; disease of the body, of the uterus and cervix comes next in importance as a cause of mental disturbance; uterine tumors and tears of the perineum rank still lower; ordinary surgical disease, such as hernia and tumors of the body at large, seem to have no influence at all as causes of such disturbance. This, it seems to me, is exactly what we might expect, since the ovaries and tubes are the most vital, the most highly organized, the most intimately associated with the mental and spiritual life, of all the organs under consideration, the uterus and cervix being the next most

vital and highly organized, and so on to organs affected by ordinary surgical diseases which do not appear to exercise any influence on the causation of insanity."

Let us, therefore, examine the foregoing cases with reference to the special nature of the operation performed.

Ovariotomy: I find that one or both ovaries were removed in 26 of the above 251 cases—about ten per cent. Of this number, seven have remained continuously in residence, while five more have died here; four more have been re-admitted and are still here. Four more did not leave until over 2½ years after the operation, while the remaining six, or 23 per cent. were discharged recovered. These facts seem to be very significant. Fifty per cent. of the cases never left the institution at all, while thirty-two per cent. more were either re-admitted or did not leave until two and a half years afterwards. Only six of the twenty-six cases recovered. I venture to say, if one were to take any twenty-six consecutive female admissions to the average Hospital for the Insane, he would find that equally as high a percentage would recover in the same length of time, without surgical intervention at all. The point which I wish to make is that, if one may judge by the conditions which prevail in our hospitals to-day, these six cases would have recovered whether they were operated upon or not.

Hysterectomy: Hysterectomy was performed in twenty-seven cases and of these only eight ever left the institution. Four of the eight cases—fourteen per cent.—were discharged recovered; a fifth has had three admissions since; a sixth was re-admitted and is still here, while the remaining two did not leave here until two and four years respectively after the operation. Of the remaining nineteen, eight died in the institution, and eleven are still in residence.

Curettage: In all, two hundred operations for curettage of the uterus were performed. Ninety-five of these

either died here or are still in residence; thirty-three more were unimproved, while seventy-two—thirty-six per cent.—recovered.

Amputation of Cervix: The cervix was amputated in sixty-five cases. Of this number, eleven have died here; twenty-one are still in residence; thirteen were discharged unimproved, while twenty—thirty per cent.—were discharged as recovered.

Alexander's Operation: I find the records show fifty-two cases of Alexander's operation. Of this number, twenty-two—forty-two per cent.—recovered. Of the remainder, eighteen are still patients here, ten have died in residence and twelve were discharged unimproved.

Trachelorrhaphy: There were eleven cases in which trachelorrhaphy was done. Five—forty-five per cent.—recovered; four were unimproved; one is still here, and one died in residence.

Perineorrhaphy: This operation was performed in thirty-seven cases. Fourteen—thirty-seven per cent.—of these women recovered, ten are in residence, five were unimproved by the operation and eight have died here.

To summarize the above cases with respect to the percentage of recoveries, irrespective of the number of cases operated upon we find:—

Trachelorrhaphy	45	per cent.
Alexander's operation	42	" "
Perineorrhaphy	32	" "
Curettage	36	" "
Amputation of cervix	30	" "
Ovariotomy	23	" "
Hysterectomy	14	" "

The conclusion to be drawn from these facts is, that the ratio of recoveries is quite independent of the importance of the organ operated upon. It will be seen at a glance that the percentage of recoveries is lowest in operations upon the uterus and ovaries, those organs

"most vital, most highly organized and most intimately associated with the mental and spiritual life."

The gynaecological work under discussion was continued for six years from 1895-1900. In order that it may be shown how the percentage of discharges in this six year period compares with other periods of like duration, the following table has been prepared. This table shows the number of admissions and discharges, both male and female, from 1889 to 1912, and is divided into four six-year periods, the second being the one in which the gynaecological work under discussion took place.

Year.	No. of male patients admitted.	No. of female patients admitted.	No. of males discharged.	Percentage of males discharged.	No. of females discharged.	Percentage of females discharged.
1889–1894	445	387	120	38.2	143	36.9
1895–1900	459	400	178	38.9	203	50.7
1901-1906	531	579	263	49.5	233	44.8
1907–1912	588	572	332	56.4	316	55.2

While it has been said that tables and statistics may be used to prove almost anything, it seems that a comparison of this nature is the more valuable because, during all this time, the patients were drawn from the same district which is largely rural. The type of the various cases admitted year after year would, therefore, be similar and a comparison of this nature would be more accurate and dependable than if our conclusions were based upon a consideration of cases drawn from different institutions and different communities.

In support of the belief that gynaecological surgery is an important factor in the treatment and cure of insanity, its advocates draw attention to the increased percentage of female discharges as a result of this method

of treatment. Seventy-five of the two hundred and fifty-one cases, or about twenty-nine per cent., recovered. These were selected cases, and the results, when compared with other methods of treatment, seem hardly ample to justify the claim that in some way insanity is due to disease of the pelvic organs and that restoration of the mental faculties follows as a logical result of a removal of the physical defect. If we look further into this matter we shall see from the above table that the number of female discharges rose markedly from 36.9 per cent. in the first period to 50.7 per cent. in the second; it fell away to 44.8 in the third period, and during the last six years rose to its highest point—55.2 per cent. Now, if the increase (from 36.9 per cent. in the first period to 50.7 per cent. in the second) was due largely to the effects of gynaecological surgery, how is it then, that during the last six years the percentage has risen still higher to 55.2 per cent., and not a single gynaecological operation has been performed? It is the opinion of the writer that some factor, other than gynaecological surgery itself, was at work during these six years of operative experiment. This very factor, which, in the enthusiasm of the surgical work, was either unrecognized or whose value was under-estimated, is the very force which has since been at work and which has made the percentage of recoveries rise higher still during the six year period just closed. To state it briefly, it is the personal attention which these patients received. It is the influence which careful, sympathetic and considerate attention on the part of the nurse and physician has upon those mentally deranged. The performance of operations upon two hundred and fifty-one women in six years would certainly entail more work on the nursing staff. The best nurses were detailed to look after these patients. The greater care required to prevent sepsis, the administration of more tempting diet, the more frequent and prolonged visits of the physicians were the real

factors then as now which were conducive to mental recovery.

It would be a matter of further interest if the diagnosis of these cases could be given, but after an examination of our records at that time, it was decided that a diagnosis expressed in the modern nomenclature could not be given with any degree of accuracy.

No.	Registered No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
1	2962	Dec. 16, 1889	Apr. 27, 1893	Discharged, Sept. 11, 1896	3 years, 5 months.	Removal of cystic ovaries.	It is unreasonable to suppose that a mental recovery forty-one months after operation, is due to operation. (Unimproved.)
2	3527	July 19, 1893	Feb. 7, 1895	Died, Feb. 18, 1895		Ovariotomy.	Died in institution.
3	3665	Jan. 12, 1894	Feb. 25, 1895	Discharged, Nov. 12, 1894	9 months.	Curettage.	Recovered.
4	3587	Nov. 20, 1893	Feb. 25, 1895	In residence.		Curettage, perineorrhophy.	Unimproved mentally.
5	3591	Dec. 11, 1893	Feb. 25, 1895	In residence.		Curettage, Alexander's operation.	Unimproved mentally.
6	3528	July 19, 1893	Apr. 1, 1895	Discharged, June 12, 1896	1 year, 2 months.	Curettage, Trachelorrhaphy.	Recovered.
7	3777	Mar. 23, 1895	Apr. 1, 1895	Discharged, June 10, 1895	2 months.	Curettage.	Recovered.
8	431	May 11, 1871	June 18, 1895	Died, May 23, 1902	6 years, 11 months.	Vaginal Hysterectomy.	Unimproved mentally.
9	3798	May 11, 1895	June 25, 1895	Discharged, June 22, 1896	1 year.	Removal of ovaries, tumor.	Readmitted June 4th, 1898. Discharged Jan. 25, 1899. Readmitted Aug. 12, 1899. In residence.
10	3732	Jan. 16, 1895	July 2, 1895	Discharged, Mar. 25, 1896	9 months.	Curettage, Trachelorrhaphy, Perineorrhophy.	Recovered
11	3763	Feb. 23, 1895	July 2, 1895	Died, Feb. 18, 1896		Curettage, Alexander's operation.	Died in institution
12	3576	Feb. 1, 1895	July 9, 1895	Discharged, Oct. 14, 1895	3 months.	Curettage, amputation of cervix.	Recovered.
13	3476	Apr. 13, 1893	July 23, 1895			Curettage, ovariotomy.	Unimproved.
14	3812	June 14, 1895	Aug. 1, 1895	Died, May 19, 1896		Vaginal hysterectomy.	Died in institution.
15	3769	Mar. 6, 1895	Aug. 14, 1895	Discharged, Dec. 28, 1895	4 months.	Curettage.	Recovered.
16	3203	July 7, 1891	Sept. 4, 1895	Discharged, Feb. 11, 1896	5 months.	Curettage trachelorrhaphy.	Returned to institution after nine months absence and has been here since.
17	3498	Apr. 26, 1893	Sept. 24, 1895	Discharged, Apr. 16, 1898	2 years, 7 months.	Curettage trachelorrhaphy.	Unreasonable to attribute recovery to operation. (Unimproved.)
18	3778	Mar. 28, 1895	Sept. 24, 1895	Discharged, Dec. 21, 1895	3 months.	Curettage.	Readmitted March 7, 1905, and discharged October 2, 1908.
19	3822	July 16, 1895	Oct. 1, 1895	Discharged, Mar. 10, 1896	6 months.	Vaginal hysterectomy.	This was patient's third admission. Since then was admitted May 1898; discharged June 10, 1899; admitted Sept. 1902; discharged Feb. 1904; admitted May, 1909; discharged Mar. 1910.

No.	Registered No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
1	3851	Sept. 30, 1895	Oct. 22, 1895	Died, Aug. 27, 1896		Curettage.	Unimproved, died in institution.
2	1664	Dec. 15, 1879	Oct. 29, 1895	In residence.		Curettage, enucleation of polyp perineorrhaphy.	Unimproved.
3	3823	July 22, 1895	Oct. 22, 1895	Died, Jan. 8, 1905		Curettage, vent, fixation, trachelorrhaphy.	Unimproved, died in institution.
4	3235	Nov. 16, 1891	Jan. 14, 1896	Died, Mar. 16, 1896		Vaginal hysterectomy.	Unimproved, died in institution.
5	3885	Dec. 15, 1895	Jan. 21, 1896	Discharged, Apr. 22, 1899	2 years, 3 months.	Curettage, trachelorrhaphy, perineorrhaphy.	Unimproved, owing to the time between the operation and discharge.
6	3856	Oct. 7, 1895	Jan. 21, 1896	Discharged, Apr. 25, 1896	3 months.	Curettage.	Recovered.
7	3874	Nov. 14, 1895	Feb. 4, 1896	In residence.		Curettage, amputation of cervix.	Unimproved.
8	3862	Oct. 17, 1895	Feb. 11, 1896	Discharged, Feb. 8, 1897	1 year.	Curettage, amputation of cervix, perineorrhaphy.	Second admission March 1898; discharged March, 1901; third admission January, 1902; in residence. unimproved.
9	3120	Dec. 6, 1890	Feb. 18, 1896	Discharged. Apr. 3, 1899	3 years, 2 months.	Vaginal hysterectomy.	Unimproved.
10	3398	Oct. 15, 1892	Feb. 25, 1896	Died, Feb. 17, 1908		Curettage, amputation of cervix, removal of labial cysts.	Unimproved, died in institution.
11	3791	Apr. 26, 1895	Mar. 10, 1896	Died, Mar. 27, 1900		Curettage, amputation of cervix, perineorrhaphy.	Unimproved, died in institution.
12	3258	Apr. 12, 1892	Mar. 24, 1896	In residence.		Curettage.	Unimproved.
13	3904	Jan. 16, 1896	Mar. 24, 1896	Discharged, Dec. 17, 1896	months.	Curettage, amputation of cervix, perineorrhaphy.	Recovered.
14	3784	Apr. 13, 1895	Mar. 31, 1896	Died, Apr. 2, 1896		Abdominal hysterectomy.	Unimproved, died in institution.
15	1669	Jan. 5, 1880	May 12, 1896	Died, June 2, 1903		Curettage, and amputation of cervix.	Unimproved, died in institution.
16	3869	Nov. 4, 1895	May 26, 1896	In residence.		Curettage, amputation of cervix, perineorrhaphy.	Unimproved.
17	3929	Mar. 30, 1896	May 26, 1896	Discharged, June 23, 1898	2 years.	Curettage, ovariotomy vent. fixation.	Readmitted Sept. 4, 1903, and still in residence. unimproved.

18	3900	Dec. 31, 1895	June 9, 1896	In residence.		Curettage, amputation of cervix.	Unimproved.
19	3884	Dec. 9, 1895	June 23, 1891	Discharged, Dec. 23, 1896	6 months.	Curettage, amputation of cervix, perineorrhaphy.	Recovered.
20	3386	Nov. 10, 1892	June 30, 1896	In residence.		Vaginal hysterectomy.	Unimproved.
21	3946	May 21, 1896	June 14, 1896	In residence.		Curettage, amputation of cervix, vent. fixation.	Unimproved.
22	3961	July 11, 1896	Aug. 4, 1896	Died, Aug. 23, 1899		Curettage, amputation of cervix.	Unimproved, died in institution.
23	3965	July 22, 1896	Sept. 2, 1896	Discharged, Mar. 31, 1898	1 1-2 years.	Curettage, Alexander's operation.	Unimproved.
24	3428	Feb. 17, 1893	Sept. 22, 1896	Died, Mar. 30, 1906		Curettage, Alexander's operation.	Unimproved, died in institution.
25	3110	Nov. 10, 1890	Sept. 29, 1896	Discharged, July 9, 1897	10 months.	Curettage, trachelorrhaphy, removal of prolapsed and adherent left ovary. Perineorrhaphy.	Recovered.

No.	Hospital No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
				Discharged.			
1	[illegible]	Aug. 5, 1896	Oct. 6, 1896	Feb. 8, 1897	4 months.	Curettage, trachelorrhaphy, Alexander's operation.	Recovered.
2	[illegible]	Aug. 13, 1895	Oct. 20, 1896	Discharged.			
				June 28, 1897	8 months.	Curettage, ventral fixation.	Readmitted April 17, 1907; in residence, unimproved.
3	[illegible]	July 18, 1893	Nov. 2, 1896	In residence.		Curettage, amputation of cervix, haemorrhoids.	Unimproved.
4	2446	Sept. 23, 1889	Nov. 10, 1896	In residence.		Curettage, amputation of cervix.	Unimproved.
5	[illegible]	July 7, 1896	Nov. 10, 1896	Discharged.			
				Apr. 26, 1898	5 months.	Curettage, amputation of cervix.	Recovered.
6	3581	July 19, 1893	Nov. 17, 1896	In residence.		Curettage, trachelorrhaphy, Alexander's operation.	Unimproved.
7	3996	Nov. 10, 1896	Dec. 1, 1896	Discharged.			
				Mar. 21, 1897	5 months.	Removal of ovaries and tubes.	Recovered.
8	[illegible]	Oct. 27, 1896	Dec. 1, 1896	Discharged.			
				Aug. 27, 1897	8 months.	Curettage, amputation of cervix.	Recovered.
9	3503	May 10, 1893	Dec. 8, 1896	In residence.		Curettage, amputation of cervix.	Unimproved.
10	3774	Mar. 15, 1895	Dec. 15, 1896	Discharged.			
				Sept. 22, 1898	1 year, 10 months.	Curettage.	Unimproved.
							Admitted Dec. 21, 1903; discharged Dec. 29, 1905; unimproved.
11	3985	Sept. 25, 1896	Dec. 22, 1896	Discharged.			
				May 21, 1897	5 months.	Curettage, amputation of cervix.	Admitted Sept. 1, 1906; in residence.
12	4006	Dec. 3, 1896	Dec. 29, 1896	Discharged.		Curettage, ovariotomy, ventral fixation.	
				June 10, 1897	6 months.		Recovered.
13	4010	Dec. 12, 1896	Jan. 5, 1897	Discharged.			
				Aug. 9, 1897	7 months.	Curettage, amputation of cervix	Recovered.
14	3648	Apr. 24, 1894	Jan. 14, 1897	In residence.		Abdominal hysterectomy.	Unimproved.
15	2848	Aug. 25, 1888	Jan. 19, 1897	Died.			
				May 7, 1900		Curettage, amputation of cervix, perineorrhaphy.	Unimproved, died in institution.
16	2838	Aug. 20, 1888	Feb. 2, 1897	In residence.		Curettage, amputation of cervix, perineorrhaphy.	Unimproved.
17	2836	Aug. 15, 1888	Feb. 2, 1897	In residence.		Curettage.	Unimproved.
18	4015	Jan. 19, 1897	Feb. 9, 1887	Discharged.			
				Sept. 15, 1899	2 years, 8 months.	Curettage, cystic right ovary, fibrous left ovary, ventral fixation.	Unimproved.
19	4008	Dec. 8, 1896	Feb. 20, 1897	Died.			
				May 13, 1897	3 months.	Curettage, perineorrhaphy.	Unimproved, died in institution.
20	3942	May 14, 1896	Feb. 23, 1897	In residence.		Curettage, and removal of both ovaries.	Unimproved.
21	4018	Jan. 27, 1898	Mar. 2, 1897	Discharged.			
				May 4, 1901	4 years.	Abdominal hysterectomy.	Unimproved.
22	[illegible]2387	Apr. 18, 1884	Mar. 9, 1897	In residence.		Curettage, amputation of cervix.	Unimproved.

23	4037	Feb. 18, 1897	Apr. 13, 1897	Discharged, Dec. 21, 1899	1 year, 8 months.	Curettage, abdominal hysterectomy, removal of ovary cyst.	Unimproved.
24	3876	Nov. 21, 1895	Apr. 20, 1897	Died, July 18, 1897		Curettage.	Unimproved, died in institution.
25	4032	Feb. 17, 1897	Apr. 20, 1897	Discharged, Aug. 29, 1897	4 months.	Curettage, perineorrhaphy.	Readmitted Dec. 20, 1902; discharged Apr. 20, 1903; unimproved.
26	4036	Feb. 18, 1897	Apr. 20, 1897	In residence.		Curettage.	Unimproved.
27	3897	Dec. 23, 1895	Apr. 27, 1897	In residence.		Curettage, amputation of cervix.	Unimproved.
28	4052	Apr. 1, 1897	Apr. 27, 1897	Discharged, July 30, 1897	3 months.	Curettage.	Recovered.
29	3923	Feb. 24, 1896	May 1, 1897		9 months.	Curettage, amputation of cervix.	Readmitted Apr. 4, 1897; discharged August 6, 1898; unimproved.
30	4063	Apr. 14, 1897	May 18, 1897	Died, Aug. 30, 1904		Curettage, Alexander's operation.	Unimproved, died in institution.
31	3863	Oct. 23, 1895	May 25, 1897	In residence.		Curettage.	Unimproved.
32	3845	Sept. 13, 1895	May 25, 1897	Died, Aug. 11, 1898	1 year, 3 months.	Abdominal hysterectomy with removal of ovaries and tubes.	Unimproved, died in institution.
33	4028	Feb. 16, 1897	June 1, 1897	Died, Aug. 23, 1899	2 years, 2 months.	Curettage, Alexander's operation.	Unimproved, died in institution.
34	3449	Mar. 10, 1893	June 8, 1897	In residence.		Abdominal hysterectomy.	Unimproved, died in institution.
35	4177	May 22, 1897	June 15, 1897	Discharged, Aug. 27, 1897	2 months.	Curettage, amputation of cervix.	Recovered.
36	3212	July 30, 1891	June 25, 1897	In residence.		Vaginal hysterectomy.	Unimproved.
37	3602	Jan. 15, 1894	July 6, 1897			Curettage, amputation of cervix.	Brockville, Oct. 17, 1902; unimproved.
38	4091	June 28, 1897	July 6, 1897	Discharged, Sept. 10, 1897	1 month.	Curettage.	Readmitted Aug. 20, 1893; discharged Sept. 26, 1903; readmitted July 24, 1905; discharged Aug. 25, 1905; unimproved.
39	4092	June 28, 1897	July 13, 1897	Discharged, Apr. 16, 1890	9 months.	Curettage, Alexander's operation.	
40	4087	June 21, 1897	July 27, 1897	In residence.		Curettage, Alexander's operation.	Unimproved.
41	4051	Mar. 3, 1897	Aug. 3, 1897	In residence.		Curettage, removal of both ovaries which were cystic, appendicostomy.	Unimproved.
42	4082	June 7, 1897	Aug. 10, 1897	In residence.		Curettage, amputation of cervix.	Unimproved.
43	3987	Oct. 2, 1896	Aug. 24, 1897	Discharged, Sept. 4, 1906	9 years, 1 month.	Curettage, amputation of cervix, Alexander's operation.	Unimproved.
44	4106	July 24, 1897	Sept. 14, 1897	In residence.		Vaginal hysterectomy.	Unimproved.
45	2326	Nov. 9, 1883	Sept. 14, 1897	In residence.		Vaginal hysterectomy.	Unimproved.
46	3857	Oct. 8, 1895	Sept. 28, 1897	Discharged, Apr. 9, 1898	7 months.	Abdominal hysterectomy and removal of recto vaginal fistula.	Recovered.
47	3438	Mar. 2, 1893	Oct. 5, 1897	In residence.			Unimproved.
48	4112	Aug. 9, 1897	Oct. 5, 1897	Discharged, May 26, 1898	7 months.	Curettage, removal cervical polyp.	Recovered.

No.	Register No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
1	3458	Mar. 2, 1893	Oct. 5, 1897	In residence.		Perineorrhaphy.	Unimproved.
2	4112	Aug. 9, 1897	Oct. 5, 1897	Discharged, Mar. 26, 1896	5 months.	Curettage, removal cervical polyp.	Recovered.
3	4128	Sept. 21, 1897	Nov. 2, 1897	Discharged, Dec. 27, 1898	1 year, 1 month.	Curettage, Alexander's operation.	Recovered.
4	4085	June 15, 1897	Nov. 9, 1897	Discharged, June 2, 1903	5 years, 5 months.	Curettage.	Admitted Dec. 8, 1905; in residence, unimproved.
5	4002	Nov. 23, 1896	Nov. 9, 1897	Discharged, Sept. 29, 1900	2 years, 11 months.	Curettage.	Unimproved.
6	3089	Sept. 4, 1890	Nov. 16, 1897			Curettage, Alexander's operation, amputation of cervix, perineorrhaphy.	
7	4141	Mar. 6, 1897	Nov. 23, 1897	In residence.		Curettage, Alexander's operation.	Unimproved.
8	4142	Nov. 15, 1897	Dec. 7, 1897	Discharged, June 28, 1898	6 months.	Curettage, Alexander's operation.	Recovered.
9	4132	Oct. 6, 1897	Dec. 7, 1897	Discharged, June 28, 1898	6 months	Curettage.	Admitted Feb. 19; discharged Apr. 9, 1903; unimproved; admitted Dec. 11, 1903, in residence.
10	4143	Mar. 16, 1897	Dec. 21, 1897	In residence.		Curettage, removal of cystic ovaries.	Unimproved.
11	4146	Mar. 23, 1897	Jan. 6, 1898	Discharged, June 23, 1898	5 months.	Curettage, Alexander's operation.	Recovered.
12	4151	Dec. 9, 1897	Jan. 11, 1898	Discharged, Aug. 26, 1898	6 months.	Abdominal hysterectomy with removal of tubes and ovaries.	Readmitted Dec. 8, 1900; still in residence; unimproved.
13	2970	Jan. 6, 1890	Mar. 22, 1898	In residence.		Curettage, Alexander's operation.	Unimproved.
14	4134	Oct. 12, 1897	Mar. 29, 1898	Discharged, Sept. 14, 1898	7 months.	Curettage, Alexander's operation.	Recovered.
15	4128	Feb. 1, 1898	Apr. 5, 1898	Died, July 10, 1900		Curettage.	Unimproved, died in institution.
16	2465	Nov. 25, 1884	Apr. 12, 1898	Died, Mar. 25, 1902		Curettage, amputation of cervix.	Unimproved, died in institution.
17		No Records.					
18	4174	Jan. 3, 1898	Apr. 20, 1898	In residence.		Removal left ovary.	Unimproved.
19	4205	Apr. 15, 1898	Apr. 26, 1898	Discharged, Apr. 8, 1899	1 year.	Curettage and coeliotomy for tubercular peritonitis.	Recovered.
20	4201	Apr. 9, 1898	May 3, 1898	Discharged, Sept. 16, 1898	4 months.	Vaginal hysterectomy.	Recovered.
21	4045	Mar. 4, 1897	May 10, 1898	Discharged, July 20, 1909		Curettage, amputation of cervix, Alexander's operation, removal of both ovaries.	Unimproved.
22	4181	Mar. 11, 1898	May 17, 1898	Discharged, Sept. 10, 1898	4 months.	Curettage, Alexander's operation.	Recovered.

23	4182	Feb. 20, 1898	May 17, 1898	In residence.		Curettage, amputation of cervix.	Unimproved.
24	4184	Feb. 25, 1898	May 26, 1898	Discharged, Aug. 17, 1899		Curettage, amputation of cervix, Alexander's operation.	Unimproved.
25	4180	Feb. 19, 1898	June 7, 1898	Discharged, Aug. 20, 1909		Curettage.	Unimproved.
26	4222	May 28, 1898	June 7, 1898	Discharged, Jan. 31, 1899	7 months.	Curettage.	Recovered.
27	4197	Apr. 1, 1896	June 7, 1898			Curettage.	Transferred to Toronto Asylum and still in residence; unimproved.
28	4216	May 16, 1898	June 21, 1898	Discharged, Jan. 11, 1900	1 year, 7 months.	Curettage.	Unimproved.
29	4189	Mar. 17, 1898	June 28, 1898	Discharged, Aug. 31, 1898		Curettage, Alexander's operation.	Unimproved.
30	4193	Mar. 30, 1898	July 5, 1898	In residence.		Curettage, Alexander's operation.	Unimproved.
31	4231	June 13, 1898	July 12, 1898	Discharged, Sept. 30, 1898	2 months.	Curettage, trachelorrhaphy, perineorrhaphy.	Readmitted May 10, 1904; discharged Sept. 12, 1904; unimproved.
32	4238	June 27, 1898	July 12, 1898	Discharged, Sept. 27, 1898	2 months.	Curettage.	Recovered.
33	4241	July 12, 1898	July 15, 1898	Discharged, Sept. 27, 1898	2 months.	Curettage.	Recovered.
34	1873	Apr. 28, 1881	Aug. 4, 1898	In residence.		Abdominal hysterectomy.	Unimproved.
35	4013	Dec. 22, 1896	Aug. 9, 1898			Curettage, amputation of cervix.	Transferred to Cobourg and still in residence; unimproved.
36	3174	May 5, 1891	Aug. 23, 1898	Died, Nov. 16, 1899		Abdominal hysterectomy.	Unimproved, died in institution.
37	3891	Dec. 13, 1895	Sept. 1, 1898	In residence.		Enucleation of cyst, removal of rudimentary uterus and left ovary.	Unimproved.
38	4246	July 29, 1898	Sept. 6, 1898	Died, Sept. 15, 1903		Curettage, and Alexander's operation.	Unimproved, died in institution.
39	4256	Aug. 21, 1898	Sept. 13, 1898	Discharged, Apr. 1, 1899	7 months.	Ovariotomy.	Recovered.
40	4254	Aug. 17, 1898	Sept. 20, 1898	Discharged, Dec. 9, 1905	7 years, 3 months.	Curettage and amputation of cervix.	Readmitted Feb. 17, 1906, and still in residence, unimproved.
41	4260	Sept. 6, 1898	Sept. 27, 1898	In residence.		Curettage and amputation of cervix.	Unimproved.
42	4206	Apr. 16, 1898	Sept. 27, 1898	In residence.		Curettage and Alexander's operation.	Unimproved.

No.	Registered No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
1	4236	Aug. 20, 1898	Oct. 4, 1898	Discharged. Feb. 24, 1902	3 years, 4 months.	Curettage, amputation of cervix.	Unimproved.
2	3744	May 18, 1895	Oct. 11, 1898	In residence.		Vaginal hysterectomy.	Unimproved.
3	4264	Oct. 1, 1898	Oct. 18, 1898	Discharged. Sept. 23, 1900	1 year, 11 months.	Perineorrhaphy.	Unimproved.
4	4264	July 22, 1896	Oct. 23, 1898	Died. Ag. 2, 1904		Abdominal hysterectomy.	Unimproved, died in institution.
5	4268	July 19, 1896	Nov. 1, 1898	Died. July 29, 1907		Curettage, removal of large cystic ovaries.	Unimproved, died in institution.
6	4268	June 1, 1894	Nov. 8, 1898	Discharged. Aug. 28, 1900	1 year, 9 months.	Curettage, Alexander's operation.	Unimproved.
7	4264	Dec. 24, 1885	Nov. 15, 1898	In residence.		Curettage, Alexander's operation.	Unimproved.
8	4269	Oct. 18, 1898	Nov. 22, 1898	Discharged. Sept. 27, 1899	10 months.	Curettage, amputation of cervix.	Recovered.
9	4274	June 7, 1898	Nov. 28, 1898	Discharged. June 15, 1899	7 months.	Curettage, Alexander's operation.	Recovered.
10	1817	Dec. 24, 1880	Dec. 13, 1898	In residence.		Curettage.	Unimproved.
11	4028	May 8, 1890	Dec. 20, 1898	In residence.		Curettage, Alexander's operation, amputation of cervix.	Unimproved.
12	4286	Dec. 24, 1898	Dec. 28, 1898	Discharged. Apr. 19, 1901	2 years, 4 months.	Curettage, myomectomy, puncture of cysts of ovaries.	Unimproved.
13	4288	Dec. 12, 1898	Jan. 4, 1899	Discharged. Jan. 10, 1902	3 years.	Curettage, ovariotomy, ventral fixation.	Unimproved.
14	4295	Dec. 24, 1898	Jan. 11, 1899	Died. Jan. 17, 1899		Abdominal hysterectomy, removal of pus tubes and ovaries.	Unimproved, died in institution.
15	4294	Dec. 23, 1898	Feb. 7, 1899	Discharged. June 21, 1899	4 months.	Curettage, Alexander's operation.	Recovered.
16	4298	Dec. 14, 1898	Feb. 14, 1899	Discharged. Sept. 29, 1900	1 year, 7 months.	Curettage.	Unimproved.
17	4305	Jan. 14, 1899	Feb. 14, 1899	Discharged. Apr. 1, 1899	2 months.	Vaginal caeliotomy and tapping of ovaries.	Recovered.
18	4273	Nov. 3, 1898	Feb. 21, 1899	Died. June 15, 1905		Removal of both ovaries.	Unimproved, died in institution.
19	4316	Feb. 13, 1899	Feb. 28, 1899	Discharged. Apr. 19, 1901	2 years, 2 months.	Curettage, Alexander's operation.	Unimproved.
20	4316	Feb. 9, 1899	Mar. 14, 1899	Discharged. Sept. 25, 1899	6 months.	Curettage, perineorrhaphy.	Recovered.
21	5797	May 9, 1895	Mar 28, 1899	Died. Mar. 15, 1905		Curettage, ovariotomy.	Unimproved, died in institution.
22	4332	Mar. 28, 1899	Apr. 11, 1899	Died. Feb. 14, 1903		Curettage, ovariotomy, ventral suspension.	Unimproved, died in institution.
23	4330	Nov. 27, 1899	Apr. 18, 1899	Discharged. Dec. 25, 1899	8 months.	Curettage, perineorrhaphy, Alexander's operation.	Recovered.
24	4314	Feb. 2, 1899	Apr. 4, 1899	Discharged. Jan. 4, 1904	4 years, 9 months.	Curettage.	Unimproved.

25	4361	May 30, 1899	June 13, 1899	Discharged, Sept. 25, 1899	3 months.	Coeliotomy with removal of three uterine fibroids and puncture of ovary cysts.	Recovered.
26	4336	Apr. 22, 1899	June 30, 1899	Discharged, Sept. 25, 1899	3 months.	Curettage, amputation of cervix, perineorrhaphy.	Recovered.
27	4341	Apr. 17, 1899	June 20, 1899	Discharged, Sept. 25, 1899	3 months.	Curettage, ventral fixation.	Recovered.
28	4357	May 25, 1899	July 4, 1899	Discharged, Sept. 25, 1900	1 year.	Alexander's operation.	Readmitted July 4, 1906; discharged Apr. 28, 1908; unimproved.
29	4346	Apr. 28, 1899	June 27, 1899	Discharged, Sept. 27, 1899	3 months.	Curettage, Alexander's operation, perineorrhaphy.	Recovered.
30	4367	June 22, 1899	July 4, 1899	Discharged, Sept. 30, 1899	2 months.	Curettage, perineorrhaphy, enucleation of polypus.	Recovered.
31	4362	May 31, 1899	July 11, 1899	Discharged, Dec. 20, 1899	5 months.	Curettage, Alexander's operation.	Recovered.
32	4366	June 16, 1899	July 18, 1899	Discharged, Mar. 30, 1900	9 months.	Curettage, amputation of cervix.	Recovered.
33	4375	July 12, 1899	Aug. 1, 1899	In residence.		Curettage.	Unimproved.
34	2146	Aug. 14, 1882	Aug. 1, 1899	In residence.		Curettage.	Unimproved.
35	4364	June 7, 1899	Aug. 1, 1899	Died, Mar. 16, 1904		Curettage.	Unimproved, died in institution.
36	4371	July 4, 1899	Aug. 8, 1899	Died, Mar. 4, 1910		Curettage.	Unimproved, died in institution.
37	3019	Apr. 25, 1890	Aug. 29, 1899	In residence.		Curettage, amputation of cervix.	Unimproved.
38	4384	Aug. 18, 1899	Sept. 12, 1899	In residence.		Curettage, perineorrhaphy.	Unimproved.
39	4382	Aug. 16, 1899	Sept. 19, 1899	Discharged, Sept. 25, 1900	1 year.	Curettage, amputation of cervix, Alexander's operation.	Recovered.
40	4386	Aug. 22, 1899	Sept. 26, 1899	Discharged, Feb. 28, 1900	5 months.	Curettage, separation of adherent ovaries, ventral fixation.	Recovered.
41	4322	Feb. 15, 1899	Aug. 16, 1899	Discharged, Sept. 30, 1899	1 month.	Curettage, trachelorrhaphy, Alexander's operation.	Recovered.

No.	Registered No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
1	4389	Aug. 10, 1899	Oct. 3, 1899	Discharged. Sept. 25, 1900	11 months.	Vaginal hysterectomy.	Recovered.
2	2746	Sept. 7, 1887	Oct. 10, 1899	In residence.		Alexander's operation.	Unimproved.
3	4402	Sept. 29, 1899	Oct. 10, 1899	In residence.		Alexander's operation.	Unimproved.
4	4390	Sept. 25, 1899	Oct. 17, 1899	Discharged. July 22, 1900	9 months.	Curettage, ventral suspension of uterus.	Readmitted Dec. 24, 1904, and still in residence, unimproved.
5	4407	Oct. 7, 1899	Oct. 24, 1899	Discharged. Apr. 9, 1900	6 months.	Curettage, amputation of cervix.	Recovered.
6	4424	Oct. 3, 1899	Oct. 24, 1899	In residence.		Curettage, perineorrhaphy.	Unimproved.
7	4412	Oct. 19, 1899	Oct. 24, 1899	Discharged. Apr. 16, 1904	4 years, 6 months.	Curettage.	Unimproved.
8	4405	Oct. 2, 1899	Oct. 31, 1899	Discharged. July 2, 1900	9 months.	Vaginal hysterectomy.	Recovered.
9	4409	Oct. 10, 1899	Nov. 7, 1899	Died. Aug. 6, 1909		Curettage.	Unimproved, died in institution.
10	4417	Oct. 23, 1899	Nov. 7, 1899	In residence.		Curettage, amputation of cervix.	Unimproved.
11	4344	July 11, 1899	Nov. 21, 1899	In residence.		Curettage, Alexander's operation.	Unimproved.
12	3139	Jan. 29, 1891	Nov. 28, 1899	Died. Feb. 20, 1905		Curettage, amputation of cervix.	Unimproved, died in institution.
13	4427	Nov. 18, 1899	Dec. 12, 1899	Died. June 29, 1903		Curettage, Alexander's operation.	Unimproved, died in institution.
14	4430	Nov. 20, 1899	Dec. 12, 1899	Discharged. Aug. 20, 1900	8 months.	Curettage.	Recovered.
15	3298	Apr. 29, 1892	Dec. 18, 1899	In residence.		Vaginal hysterectomy.	Unimproved.
16	4428	Nov. 18, 1899	Jan. 9, 1900	In residence.		Curettage, amputation of cervix, ovariotomy, ventral fixation.	Unimproved; epileptic.
17	4452	Nov. 23, 1899	Jan. 10, 1900	Discharged. Sept. 29, 1900	8 months.	Curettage, amputation of cervix.	Recovered.
18	4451	Jan. 19, 1900	Jan. 23, 1900	Discharged Sept. 30, 1900	8 months.	Curettage, Alexander's operation.	Recovered.
19	4440	Dec. 19, 1899	Feb. 6, 1900	Died, Sept. 30, 1900	1 month.	Perineorrhaphy.	Unimproved, died in institution.
20	2977	Jan. 9, 1890	Feb. 20, 1900	Died. Oct. 10, 1911		Curettage, amputation of cervix, perineorrhaphy.	Unimproved, died in institution.
21	2912	Apr. 2, 1889	Feb. 27, 1900	In residence.		Curettage, ovariotomy, ventral fixation.	Unimproved.
22	3463	Mar. 31, 1883	Feb. 27, 1900	In residence.		Curettage.	Unimproved.

23	4455	Feb. 2, 1900	Mar. 7, 1900	Died, Dec. 22, 1901		Curettage, myomectomy.	Unimproved, died in institution.
24	1545	Apr. 9, 1879	Mar. 13, 1900	In residence.	2 months.	Curettage, perineorrhaphy.	Unimproved.
25	4461	Feb. 28, 1900	Mar. 13, 1900	Discharged, May 9, 1900		Curettage, amputation of cervix.	Recovered.
26	2679	Oct. 14, 1886	Mar. 27, 1900	In residence.		Alexander's operation.	Unimproved.
27	4465	Mar. 12, 1900	Mar. 27, 1900	Discharged, Aug. 23, 1900	5 months.	Curettage, amputation of cervix.	
28	4464	Mar. 10, 1900	Apr. 10, 1900	Discharged, Aug. 24, 1900	1 month.	Curettage, amputation of cervix.	Recovered.
29	4471	Mar. 30, 1900	Apr. 10, 1900	Discharged, Dec. 8, 1900	8 months.	Curettage, Alexander's operation.	Recovered.
30	4478	Apr. 6, 1900	May 22, 1900	Died, Oct. 1, 1901		Removal of right ovary (cystic), curettage, ventral fixation.	Unimproved, died in institution.
31	4473	Mar. 30, 1900	May 29, 1900	Died, June 15, 1904		Curettage, amputation of cervix, perineorrhaphy.	Unimproved, died in institution.
32	4497	May 18, 1900	May 29, 1900	Discharged, Feb. 25, 1901	9 months.	Curettage, Alexander's operation.	Recovered.
33	4482	Apr. 16, 1900	May 29, 1900	Discharged, Sept. 25, 1900	4 months.	Curettage.	Recovered.
34	4500	May 19, 1900	May 31, 1900	Discharged, Aug 3, 1900	4 months.	Curettage, Alexander's operation.	Recovered.
35	4479	Apr. 6, 1900	June 5, 1900	Discharged, Sept. 25, 1900	3 months.	Curettage, perineorrhaphy.	Recovered.
36	4496	May 17, 1900	June 5, 1900	Discharged, Sept. 15, 1903	3 years, 3 months.	Curettage, amputation of cervix.	Unimproved.
37	4493	May 8, 1900	June 12, 1900	In residence.		Curettage, Alexander's operation.	Unimproved.
38	4494	May 9, 1900	June 12, 1900	Discharged, Sept. 25, 1900	3 months.	Curettage, amputation of cervix.	Recovered.
39	4420	May 7, 1900	June 12, 1900	Died, Oct. 3, 1906		Perineorrhaphy.	Unimproved, died in institution.
40	4504	June 5, 1900	June 19, 1900	Discharged, Mar. 30, 1901	9 months.	Curettage.	Recovered.
41	4506	June 5, 1900	June 26, 1900	Discharged, Sept. 29, 1900	3 months.	Curettage, ventral fixation, removal of right ovary.	Recovered.
42	4514	June 25, 1900	July 3, 1900	In residence.		Curettage.	Unimproved.
43	4520	July 7, 1900	July 24, 1900	Discharged, May 2, 1902	1 year, 10 months.	Curettage, Alexander's operation.	Unimproved.
44	4529	July 23, 1900	July 31, 1900	Discharged, Aug. 25, 1900	1 month.	Curettage.	Recovered.
45	3611	Jan. 31, 1894	July 31, 1900	In residence.		Curettage, Alexander's operation, amputation of cervix.	Unimproved.
6	4522	July 11, 1900	July 31, 1900	In residence.		Curettage, amputation of cervix, perineorrhaphy.	Unimproved.

No.	Hospital No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
47	4502	July 27, 1900	Aug. 7, 1900	In residence.		Curettage, amputation of cervix.	Unimproved.
48	4525	July 18, 1900	Aug. 14, 1900	Discharged, June 28, 1901	10 months.	Curettage, perineorrhaphy.	Recovered.
49	4537	Aug. 9, 1900	Aug. 21, 1900	In residence.		Curettage.	Unimproved.
50	4523	July 11, 1900	Aug. 21, 1900	Discharged, May 24, 1901	9 months.	Curettage, Alexander's operation.	Recovered.
51	4531	July 25, 1900	Aug. 21, 1900	Discharged, May 4, 1901	7 months.	Curettage.	Recovered.
52	4528	July 20, 1900	Aug. 28, 1900	Discharged, Sept. 12, 1901	1 year, 1 month.	Curettage.	Recovered.
53	4535	Aug. 4, 1900	Aug. 28, 1900	Discharged, June 27, 1903	2 years, 10 months.	Curettage.	Unimproved.
54	4539	Aug. 18, 1900	Aug. 28, 1900	In residence.		Curettage.	Unimproved.
55	4546	Sept. 3, 1900	June 14, 1900	Discharged, Nov. 7, 1902	2 years, 5 months.	Curettage.	Unimproved.
56	4553	Sept. 17, 1900	Sept. 18, 1900	Discharged, Apr. 25, 1901	7 months.	Curettage, amputation of cervix, Alexander's operation.	Recovered.
57	4549	Sept. 12, 1900	Sept. 25, 1900	Discharged, July 13, 1901	1 year, 1 month.	Curettage, Alexander's operation.	

No.	Registered No.	Date of Admission.	Date of Operation.	Final Result.	Time between Operation and Discharge.	Nature of Operation.	Remarks.
1	4528	Aug. 11, 1900	Oct. 9, 1900	Discharged, Jan. 7, 1902	1 year, 3 months.	Curettage.	Unimproved.
2	416	Apr. 11, 1871	Oct. 16, 1900	In residence.		Vaginal hysterectomy.	Unimproved.
3	4562	Oct. 11, 1900	Oct. 30, 1900	In residence.		Curettage, Alexander's operation, amputation of cervix, perineorrhaphy.	Unimproved.
4	4536	Aug. 8, 1900	Nov. 13, 1900	Discharged, May 8, 1902	1 year, 6 months.	Curettage, amputation of cervix, perineorrhaphy.	Unimproved.
5	4219	May 23, 1898	Nov. 20, 1900	Discharged, Dec. 21, 1905	5 years, 1 month.	Curettage.	Unimproved. Recovered.
6	4570	Nov. 5, 1900	Nov. 27, 1900	Discharged, Dec. 20, 1900	1 month.	Curettage, amputation of cervix.	Recovered.
7	4567	Oct. 31, 1900	Nov. 27, 1900	Discharged, Sept. 19, 1901	11 months.	Curettage.	Recovered.
8	3221	Sept. 2, 1891	Dec. 5, 1900	In residence.		Curettage, amputation of cervix.	Unimproved.
9	4571	Nov. 9, 1900	Dec. 5, 1900	Died, May 11, 1902		Curettage.	Unimproved, died in institution.
10	4576	Nov. 22, 1900	Dec. 18, 1900	Discharged, Jan. 16, 1902	1 year, 1 month.	Curettage.	Unimproved.
11	4590	Dec. 18, 1900	Jan. 15, 1901	Discharged, Apr. 10, 1901	3 months.	Curettage, amputation of cervix, perineorrhaphy.	Recovered.
12	4597	Jan. 1, 1901	Jan. 22, 1901	Discharged, Feb. 27, 1901	1 month.	Curettage, ventral suspension of uterus.	Recovered.
13	4600	Jan. 8, 1901	Jan. 29, 1901	Discharged, May 16, 1901	4 months.	Curettage and perineorrhaphy.	Recovered.
14	3489	Apr. 18, 1893	Feb. 12, 1901	Died, Mar. 7, 1911		Curettage, amputation of cervix, perineorrhaphy.	Unimproved, died in institution.
15	4612	Feb. 5, 1901	Feb. 26, 1901	Discharged, Aug. 10, 1901	6 months.	Curettage, amputation of cervix, perineorrhaphy.	Unimproved; second admission Sept. 11, 1901; discharged Apr. 29, 1904.
16	4595	Dec. 29, 1900	Jan. 5, 1901	In residence.		Curettage, Alexander's operation.	Unimproved.
17	4611	Feb. 1, 1901	Apr. 23, 1901	Discharged, Nov. 4, 1901	7 months.	Curettage.	Recovered.
18		Apr. 2, 1901	May 7, 1901	Died, Nov. 2, 1903		Curettage, amputation of cervix.	Unimproved, died in institution.
19		Mar. 26, 1901	Jan. 15, 1901	Discharged, July 8, 1901	6 months.	Removal of both ovaries.	Readmitted Apr. 15, 1902, and still in residence, unimproved.

NOTES ON THE TREATMENT OF MENTAL EXCITEMENT WITH REPORT OF THREE CASES.

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In the pioneer days of Psychiatry all cases of mental excitement were treated by restraint, and it was quite common to see excited patients chained to stakes. This was quickly followed by the use of straight jackets, muffs, and retention sheets, but I am glad to say that these methods are practically obsolete now.

In 1792, the first steps towards the treatment of mentally excited patients by non-restraint were taken by Tuke in England and Pinel in France. Chains were removed and both these men tried to make the Institutions in their respective countries assume as much a home-like environment as was consistent with the safety of the patients and those in charge. Gardiner Hill and Charlesworth introduced the non-restraint system at the Lincoln Asylum in 1837. Every friend of the Insane should feel thankful to these men for the humane course pursued, and the attention they drew to the evil of the excessive resort to mechanical restraint. For years bleeding and the application of cataplasms were quite common as may be seen in the old case book records of the Ontario Hospitals for the Insane.

To-day the methods employed for the treatment of cases of mental excitement may be grouped under four heads:—

1. Rest in bed with plenty of fresh air.
2. Isolation.
3. Medication.
4. Hydrotheraphy.

Rest in Bed with Plenty of Fresh Air has a three-fold advantage of saving the patient's energy, calming excitement, and facilitating supervision. It is indicated in most of the acute psychoses of the mild type and in periods of exacerbation of chronic psychoses. After a few days it is as well to allow the patient up for two hours daily and to use a part of this time for outdoor exercise, gradually increasing the length of time out of bed. The patient should receive good nourishing diet with milk, egg-nogs and cocoa between meals.

These cases are treated best in small dormitories or on verandahs, accommodating not more than ten or eleven beds. The example of the patients who have already submitted to this mode of treatment exercises a salutary influence upon the new patient and helps to induce him to accept it.

Though the patient may be very restless and move about in his bed, he seldom leaves it, and if he does, he usually returns without difficulty.

Isolation.—This treatment for excitement is generally opposed as the patient is not under constant observation. It is contraindicated in patients with suicidal tendencies and should not, as a rule, be employed until other measures, such as rest in bed in a dormitory, continuous baths and hot packs have been tried. Many dements and chronic-disturbed patients who would become excited in a dormitory, rest well when in a single room, but an attendant must have ready access to the room. Excited epileptics, who are always very irritable are treated best by Isolation.

Medication.—Sedative drugs are often used in acute mental excitement and their use is condemned by many. It is generally admitted that their employment is undesirable, and when they are used for their sedative effect it is the choice of a lesser evil.

(The case should be carefully studied and considered by the Physician before resorting to such treatment.)

Hydrotheraphy.—The prolonged bath at 94° and 96°

F., is the most calmative method of controlling mental excitement and has none of the objections alleged against sedative drugs. Good result are also obtained from hot packs.

Methods of applying Continuous Bath.—A canvas hammock is slung in the bath tub, being attached to the sides and ends. The tub is filled with water at a temperature of 94°-96° F., from a regulating apparatus. A blanket, which prevents the excoriation of the patient's skin, is spread on the canvas. Then the patient, who has been stripped, is placed in the blanket, which is wrapped around him. An ice-cap is applied to the patient's head as it tends to lessen the cerebral congestion in these cases. An experienced nurse, who will be able to detect the first signs of collapse or heart failure, must be in charge. These untoward effects are very rare, but have been known to occur.

In suitable cases the sedative effect of the continuous bath is often evident in a few minutes, but one need not hesitate to leave the patient in for hours. Many of our mentally excited cases spend the day in the bath and sleep soundly at night.

In Germany, where this treatment originated, patients were kept in the bath for hours, days and weeks, eating and sleeping there.

Method of applying a Hot Pack.—A piece of mackintosh is spread on a mattress, and on this is spread a dry blanket. Then another blanket, which has been wrung out of water at a temperature of 110° F., so as to be absolutely free from drip is spread over the dry blanket. The patient after being stripped is placed on this blanket, which is rapidly folded around him, care being taken to wrap each limb separately. The mackintosh is folded over the blanket and then two or three dry blankets are placed over all. Ice cap is then applied.

Patients may be left in a hot pack for a half to one hour, depending on the effect obtained, but they must be under the constant observation of an experienced nurse.

THE FOLLOWING ARE SHORT ACCOUNTS OF THE TREATMENT OF THREE OF OUR PATIENTS BY THE CONTINUOUS BATHS.

Case No. 1.—W. S., aged 45 years. Occupation, tailor. Disease, Acute Alcoholic Delirium. This man was brought to the Institution in a state of extreme excitement. His wrists were hand-cuffed, and his legs bound together with cords so violent had been his behaviour. On being admitted to the ward his excitement persisted. He talked unceasingly in a disconnected fashion. Auditory, and more particularly visual hallucinations were pronounced, and his attempts to escape from, and protect himself from his tormentors were unceasing. He upset his bed and bedding, and was constantly on the move. It was evident that his strength could not long withstand such intense delirium, and continuous bath treatment was at once instituted, and a special day and night nurse detailed to the case.

October 21.—The patient spent six hours in the continuous bath. Improvement was noticeable in less than two hours. He became comparatively quiet, but continued to mutter to himself. Some restlessness at intervals. No sleep.

October 22.—Patient in the bath three hours during the forenoon, and three hours during the afternoon. Quiet, but no sleep. Conversation rambling and irrational. During the night, however, he had his first sleep since admission—four hours in duration.

October 23.—Six hours in the bath. Short periods of restlessness. Made some rational remarks. Slept six hours during the night.

October 24.—Three hours in the bath. Excitement, restlessness and hallucinations gone. Conversation rational. General condition, good.

October 30.—He went home to-day quite recovered.

This is one of the several cases of alcoholic delirium treated in this way. The results are speedy, and patients are brought through the attack in good condition, and with comparatively small impairment of strength. Continuous bath treatment is particularly suited to excitement of this type.

Case No. 2.—J. J. A. admitted at 8 a.m., February 21st, 1912. Suffering from acute Catatonic Excitement. For three days before admission had been confused and violent. He could not recognize his friends or his surroundings, but plunged about senselessly, striking, kicking and spitting at everything within reach. No sleep for eighty hours and had taken no food or drink.

February 21st.—He was at once given hot milk by nasal tube, and continuous bath treatment ordered six hours daily. At first he struggled and was restless in the bath, but later became quieter. On being put to bed in the evening he became drowsy and slept eight hours the first night after admission.

February 25th.—Since the last note, patient has had bath treatment four hours daily. No return of excitement, sleeps eight hours each night. Becoming more rational.

February 28th.—Bath treatment discontinued. Excitement has quite disappeared. Hallucinations and delusions still present.

Generally speaking the effect of the bath on catatonic excitement is less marked than in the excitement of other types. Nevertheless, it controlled this patient wonderfully, but unfortunately there has been no accompanying improvement as regards the other mental symptoms.

Case No. 3.—G. C., age 40 years, admitted April 3rd, 1912. Suffering from General Paresis. On several occasions since admission he has had outbreaks of excitement amounting to frenzy and lasting for several days. During these periods he is sleepless, will not eat, constantly shouts and sings at the top of his voice. Tears up his clothing and has violent tendencies.

Of all the treatment used, only the continuous bath affords relief. Eight hours treatment brings quiet after one or two days' application. In addition to the quieting effects, the bath has a very beneficial influence in preventing the formation of bed-sores, a common complication in this disease unless every precaution is adopted.

REPORT OF TWO CASES OF AMNESIA.

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The two cases of Amnesia, here reported may prove of interest to the Medical Profession.

On the morning of October 17th, 1912, a man of medium size and good physique, entered the general office of this Institution, asking for an examination, and claimed to have lost remembrance of his name, place of residence and all events prior to October 15th. From this date to the present, his memory is perfect. He remembers awakening in the Hospital, although he was not aware of the character of the place, until so informed. Everything that has occurred since is remembered in detail. He remembers that he is a Roman Catholic and can recite portions of the Rosary. Seeing a stethoscope lying on the table, he immediately recognized it and was able to explain its use, but was not able to name it, when told the name he said it was correct. He then said he had some recollection of drugs, instruments and operations. When taken to the dispensary and shown some drugs, he was able to tell the name of some, and could also give the correct doses, others he apparently recognized, but could not recall the name. He also knew several surgical instruments and described roughly, some

operations, but this knowledge seemed very superficial, and coupled with his general appearance excluded the possibility of his being either a student or a practitioner of medicine. He thought probably that he had graduated as a male nurse from some institution.

His consciousness showed no clouding and he apprehended what was said to him. No illusions or hallucinations could be elicited. His attention was easily gained, maintained and directed.

He was perfectly oriented as to date, place and person of those surrounding him. These he had been told since he regained consciousness on the 15th. He was completely disoriented as to his own identity.

Train of thought was well connected and associated.

Judgment was good for abstract affairs, but, of course, his loss of memory seriously interfered with the exhibition of this faculty.

Delusions did not exist.

Emotional Field appeared to be normal in depth and stability, but naturally he showed some anxiety about his condition.

Volitional Field exhibits no mannerisms nor re-actions other than might be expected in a normal individual.

Autognosis. He had perfect insight into his condition.

Physical Examination showed no abnormalities, except a slight disturbance of the digestive functions.

Nothing of his history could be learned, except that he had been picked up unconscious in one of the churches of this city, on the evening of October 10th, and was taken to the Hospital in this condition. He remained unconscious until October 15th.

October 17th.—He was admitted to this Institution, sent to Ward A, bathed and put to bed. A brisk purgative was given and his diet restricted to liquids.

October 18th.—After the administration of three enemas his bowels were opened, but he complained of

considerable pain in the abdomen, examination showed a general distension and tenderness over the entire abdomen and a little more severe over McBurney's point. This was treated by hot applications externally and enemas.

October 19th.—Pain in abdomen is much less, distension and tenderness considerably better. He says he feels much better and is free from headache. The enema was repeated and a hot, wet pack given. He now remembered that his first name is ——.

October 20th.—Physical condition has improved, bowels are acting freely and his tongue is cleaning rapidly. He remembered his surname. He was given another hot, wet pack.

October 21st.—He was quite recovered physically. His memory is returning and he now states that he was for some time a male nurse in Florida, but that of late he has been living in Toronto.

October 22nd.—To-day he claims that his memory is completely recovered up to the evening of October 11th, from that date to October 15th, everything is a blank. He is now able to give his family history.

His father died at the age of 58 years from some stomach trouble, but he is not certain of the exact nature of this, as he was in Winnipeg at the time. His mother is alive and well at the age of 56 years. His grand-parents lived to be over 80. He has 11 aunts and uncles living, and one dead. He denies any nervous or mental trouble to have existed in the family. All were total abstainers. There was no consanguinity between parents.

Personal History.—He gave his name. He said he was born April 21st, 1884, was not married, that he had graduated as a male nurse in Florida in 1902, since then he had been engaged in nursing in both private and hospital practice.

Past Illnesses.—At ten years of age he had scarletina,

diphtheria and jaundice. He has never shown any nervous or mental symptoms prior to present illness.

Present Illness.—He came to Hamilton, October 11th, looking for work, after having a difference with the surgeon, with whom he had been associated. He arrived in Hamilton at 3.00 p.m., and wandered around the city. He ate his supper at one of the restaurants, and at 7 p.m. went to church. He claimed that he had not been taking any drugs or alcohol, but that he had smoked several cigarettes. While he knelt at prayers he felt as if overcome with sleep. He tried to fight this feeling, but was unable to do so. He has a faint recollection of being lifted into the ambulance, but remembers nothing more until he regained consciousness on the 15th.

October 24th.—Was presented at Staff Conference as "Toxic Amnesia." All present concurred on the diagnosis.

October 25th.—Was to-day discharged as cured.

Up to the date of writing, March 13th, 1913, he has enjoyed splendid health, both mentally and physically.

On December 4th, considerable consternation was aroused by a young man running amuck in one of the large office buildings of this city. He abruptly entered one of the offices which was occupied by several stenographers, shouting at the top of his voice and attempted to assault some of the ladies present. The police were immediately telephoned for, and arriving on the scene promptly took him in charge. He was taken to the police station and lodged there for the night.

On the 9th he was examined by two physicians, who certified that "he talked freely in an irrational way, and showed considerable confusion." He himself, said, "My head is not right." He claimed to have had no memory of what happened from the time he entered the office until he woke in the police station on the morning of the 9th. He was judged insane by the Magistrate, and was admitted to this Institution and sent to Ward A.

He is a small sized man of about 40 years of age, seems nervous and somewhat confused. He was given a bath, and put to bed, during the night he slept well.

December 10th.—On being questioned he gave the following information relating to himself and family. The father died at the age of 55 years, cause of death said to have been shock of his wife's death. Mother died at 55 years of Tuberculosis. He has seven uncles and aunts living and well, four are dead, in one case, cause of death is unknown, two died of old age, and one died in infancy. One aunt and one sister are said to have been "hysterical," and the entire family, patient stated, are nervous and excitable.

Personal History.—Patient was born in England, August 27th, 1871. Birth, childhood and growth are said to have been normal, but he was backward in learning to walk. One brother was similarly affected. He has followed a variety of occupations, having been a grocer, a brass finisher, a farmer and a labourer. He has always been a beer drinker, but was never intoxicated. The house in which he lived had a furnace which gave off coal gas, and this used to give him severe headaches.

As a child he suffered from measles and chicken-pox, and in 1906 he had a severe attack of influenza, and 12 months ago had migrain for three months.

Present Illness.—In 1900 he became very much depressed and was unable to sleep, had an impulse to go home and left immediately, leaving his work unfinished. He was confined to bed, and states that there was considerable mental confusion. There was some amnesia at this time, but he was unable to go into detail. This attack lasted for about a week, and he then returned to his work. During the summer of 1912, while working for one of the railways, he complained of having to do more than his proper share of work, and for this reason left the road, and for two months following did no work. He states, "I just took things easy, having no one to please but myself."

On December 4th, he entered an office to see a gentleman about some real estate and this man was not in. Leaving the office he does not remember whether he took the elevator up or down, and he evidently remembers nothing until he regained consciousness in the police station. Since the return of consciousness he feels dull and apathetic, and has a peculiar sensation in his head, which he explains as feeling "as if frozen." He denies that he took drugs or alcohol, and he attributes the cause of this attack to a cigar that he had smoked and which he says, "Did not taste like an English one, but as if it were doped."

Mental Examination.

Facial expression, intelligent.

Manner, humble.

Address, friendly.

Consciousness and Apprehension.—There is no clouding of consciousness and he apprehends all that is said to him.

Attention is easily gained, retained and directed.

Memory.—Amnesia as noted, but otherwise appears to be good for both recent and remote events. Does the 100-6 test correctly but slowly, has to give considerable thought to each calculation. He also does the three-word test correctly.

Associative Process.—No paralysis or retardation, neither fixed nor flight of ideas. Ideas are fairly plentiful.

Judgment appears good for abstract questions. No delusions could be elicited.

Orientation for time, place and persons is perfect.

Perception seems sufficient.

No illusions or hallucinations could be elicited.

Emotional Field affect tone, seems to be of fair depth and stability.

Volitional Field.—No mannerisms or negativismus. Neither increased nor retarded facility. Is rather impulsive.

Autognosis has insight into his mental condition. Says he is run down.

Physical Examination is negative.

Urinalysis, negative.

December 12th.—Patient has been quiet and well behaved, giving but little trouble. He remembers taking the elevator in the building on the 4th and says now, that he went up.

December 15th.—He now remembers shouting and causing considerable confusion, but this is so indefinite that he cannot go into detail.

December 20th.—Continues quiet, memory has not improved since last note.

December 28th.—He is markedly confused and excited to-day, his face is flushed and he shows mannerisms. He states he feels in excellent spirits.

January 3rd, 1913.—He has been excited since last note. Has decorated himself in a most grotesque manner with portions of his clothes.

January 15th, 1913.—He has shown some improvement, and is not so disturbed, but is still restless and elated.

January 27th.—Continues much the same, at times elated and excited, then again quiet, eating and sleeping well.

February 5th.—Is very much excited and restless to-day, destroying his clothes and bedding.

February 14th.—Continues excited, confined to bed and complains of pain over the left temple, says it is neuralgia, and that he always has it when he has these attacks.

February 18th.—Pain has been relieved and he shows a slight improvement mentally.

February 25th.—Shows some slight improvement, is not so restless.

March 5th.—Is again excited.

March 13th.—Is very melancholic, says he might better be dead and asks to have his coffin ordered for him.

The treatment followed in this case was rest in bed, light and nutritious diet, hot, wet packs, cold sprays and continuous baths.

THE USE OF HYPNOTICS IN ACUTE MANIA.

By W. A. Marshall, M.D.,

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A considerable part of the college course of the student is devoted to a study of the numerous drugs which are believed to be so useful in the alleviation and cure of disease. His text-book, which he looks upon as the product of the faithful investigation of the eminent men in medicine at the present time, assures him of their efficiency, and the instruction received during his college course serves to increase the confidence that he will have at his disposal a veritable store of remedies, which will make certain his success as a medical practitioner. As he steps out into the field of active medicine it is not long until his confidence in his medicine is shaken. His favorite remedy fails him at a critical moment, when he expected success. Observation shows probably, the apparently successful course of the disease without the remedy. He begins to regard it with suspicion. Necessarily there is a change in his attitude towards his remedies. He hears much about the natural tendency of the diseased body toward recovery, he sees it for himself, and it is a greater factor than he imagined. He sees carried out, under his own eyes, without his aid, what he had hoped to do. He is subject to a sense of disappointment and a feeling of helplessness.

Sooner or later he takes on a new attitude towards the subject. He takes nature as his ally, he studies his patient more carefully, he recognizes the value of favorable environment and therapeutic agencies other than drugs. He controls and directs the case. He is there to watch and wait. He acts when the opportunity or emergency arises to control or assist nature in her attempt to cure.

To the interested student in medicine, however, interest in the treatment of disease by the use of drugs does not disappear. An eminent man in medicine to-day says of the man who refuses to admit the value of drugs in medicine that, either he has not used them at all, or he has not used them aright. In the standard text-books and other authorities he reads that certain drugs are useful, or probably, occasionally of value in influencing the course of certain diseases. It seems preferable to him to believe, not that drugs are of no value, but rather that he has failed to find wherein their value lies. Interest is renewed and there follows more complete study of the progress of disease and an honest attempt to ascertain just where the occasional useful effects of drugs are found. The result is a new attitude towards his Materia Medica. Whereas before he had imagined that he had the whole pharmacopeia at his disposal, only a small part of it is of use, and it is that part with which he has had actual experience. He starts with the oldest and most well established remedies. He is creating a new pharmacopeia of his own, the material in which gradually increases according to the observation and attention which he shows in the administration of remedies.

We have in the Hypnotics a group of drugs which would materially assist in controlling the excitement of mania. The authorities, however, exhibit a certain reserve in advising their use, even to a limited extent, in the treatment of this disease. "Use no more hypnotics than is necessary" is the warning given, and it can be said

that, as a rule, a patient can be brought through this disease without a single dose of these drugs. We naturally ask: "Wherein does this danger lie?" One of the hypnotics which might be used to control excitement is most extensively used in general practice, viz.: Morphine. Its danger is well known. Among the dangers in the use of Opium there is the liability to contract the drug habit as a result of its continued use over a more or less prolonged period. In the surgical cases there is the danger of masking the symptoms of disease, and thus being a handicap upon the surgeon, on whom falls the responsibility of making the diagnosis and treating the disease. Nevertheless the drug is used extensively in disease accompanied by severe pain. A surgeon understanding the case perfectly does not hesitate to use it upon occasion. The drug is excreted fairly rapidly and as this takes place the nervous system rapidly recovers. From astonishingly large doses administered during pain the nervous system never shows any permanent effects. The danger from Morphine lies in its continued use. Morphine is known as an antidote for pain. The more pain present, the more Morphine the nervous system can stand without ill effect. From its action in mania we should also suppose that it is an antidote here also. The more severe the grade of excitement, the more of the drug the nervous system can stand. The bad effects from the use of Morphine in mania is the same as in the treatment of bodily diseases, viz.: in its prolonged use over a period and in masking the symptoms of the disease. In the hands of the physician in full understanding and control of the case it is by no means a dangerous drug.

Clinically, mania may be divided roughly into two classes, the mild and severe forms. No arbitrary lines are recognized in this division and the two classes gradually blend into one another. In the mild form the mental excitement is not severe and does not, to any great extent, interfere with the bodily health. The more severe the

form of mania the more damage is done to the body. In the worst forms of mania, a small percentage of the cases, luckily, severe demands are made upon the physical constitution. The loss of rest, the tremendous physical exertion in comparison with the amount of nourishment taken, leads to rapid emaciation and exhaustion. The patient passes from one paroxysm of excitement to another, in the intervals lying on the floor or bed, quivering and sobbing with weariness. Sleep by natural means becomes impossible, the mental and motor excitement appears to increase with the physical exhaustion and the patient may die rather suddenly after a fit of excitement.

The treatment for the acute stage of mania revolves around the care of the body. Care is taken to keep up the eliminative action of the skin and kidneys and to prevent constipation. Plenty of light and easily assimilated nourishment is given. Rest in bed, if possible, is preferable. If this is impossible plenty of attention, with as much freedom and absence of restraint as is practicable under the circumstances, a quiet ward with an absence of distraction is necessary to promote as much sleep as possible. The chief aim is to keep the body in as good a condition as possible, until the individual has regained control over his mental processes. It is in the most severe form of mania that this object is so difficult. Rest and sleep, which is so necessary, is very difficult to obtain. It is usual for the more modern therapeutic measures to fail in this critical moment. These measures advised usually hydrotherapeutic are the most valuable agents in the treatment of mania, and should never be neglected. They keep the skin healthy. They have a temporary soothing effect upon the nervous system and are, as a rule, pleasant and agreeable to the patient. When they fail, however, and rest becomes absolutely necessary on account of physical exhaustion, it is time to bring to their aid some form of hypnotic. No more than necessary should be given, but the necessary amount in this case is

sufficient to give the patient a certain amount of sleep. Sometimes comparatively large amounts are necessary. When once sleep is induced, if undisturbed, the patient will sleep quietly, as a rule, for five or six hours. He usually awakes refreshed with the mental excitement somewhat abated. Should severe excitement continue, physical exhaustion will again intervene, and another administration of the hypnotic will be necessary. The second administration does not, as a rule, require more of the drug, but usually less. Sometimes one administration of the hypnotic is sufficient to tide the patient over the critical period of mental excitement, and the patient enters upon the usual period of chronic mania preceding recovery.

Regarding the best drug to use, Morphine is by all means the most effective and preferable. Morphine ¼ grain, combined with Hyocin 1-100, hypodermically is very efficient in inducing sleep. It may be necessary to repeat the Morphine in smaller doses every hour until sleep is induced. In doses, which would be required as a rule, Sulphonal, Trional and Veronal leave bad after-effects, such as headache and vertigo. Chloral Hydrate in 5 to 10 grain doses every two hours is very useful as an aid to the Morphine. It does not, as a rule, leave any bad effects. The Bromides might easily be combined with Chloral in administration. Hyocin, in doses of 1-100 grain, acts well in combination with Morphine. But the former, if given in large doses, is apt to cause a disagreeable sensation in the throat and also inhibits diaphoretic action.

In the treatment of mania drugs are among the least important, and should be the last measure introduced, but there are cases when it appears almost indispensible. The man who states that he has never used a hypnotic has rejected what becomes, at times, a most valuable aid in treating acute mental excitement.

A CONSIDERATION OF DIETS.

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In Hospitals for Insane two classes of diets are in use —an ordinary and a special. Special diets are essentially hospital diets and are adapted or copied from those in use in general hospitals. These are the result of much careful study and are planned to obviate a digestive anomaly, e.g., a protein diet in Hyperacidity, or a metabolic disorder, e.g., excessive catabolism in Catatonic unrest, or the defective sugar retention in Diabetes. There is abundant clinical evidence that these special diets are efficient. Since they are relatively seldom required their cost is of secondary importance.

Ordinary diets may be influenced in their selection by various circumstances, such as the geographical location of the institution, local markets, and custom. Efficiency is no doubt given consideration, but economy is more easily recorded and more readily recognized in periodical reports.

In securing data on which to base a study of dietaries it is interesting to trace the evolution of human race, during the progress of which it may be noted that man's diet has been determined partly by the availibility of food and partly by instinctive selection. In this instinctive selection he has differentiated himself from other animals by his tendency to select food in which the nutriment is concentrated, digestion easy and taste pleasant. His ability to secure food has increased with his intelligence. Thus we find him primarily a vegetarian subsisting on seeds, nuts and fruits; then as he became able to hunt and fish he became carnivorous, and finally in the agricultural era he began to mix the seeds

of plants with flesh. By cooking he increased the digestibility and lessened the amount of waste. Two deductions from this history are permissible: one that the occasional occurrence in modern times of the fad of vegetarianism is more probably an evidence of atavism than of scientific thinking; the other that the human organism possesses a remarkable power of adaptation. This adaptation is exemplified in our own times in comparing the Esquimaux who subsists on purely animal diet with some high-caste Hindus who eat only plant food. However, neither the Esquimaux or the Hindu furnishes our best physical or mental types. We find the greatest endurance and mental activity among those consuming a mixed flesh and plant diet, and our most trustworthy data in the study of dietaries is derived from an analytical consideration of what is eaten daily by persons in various occupations in many countries.

In making an analysis, a diet may be submitted to four tests:

1. *Chemical*—The determination of the percentages of protein fat, and carbohydrates present.

2. *Physical*—How much potential energy does it possess? This test depends upon the fact that the changes which a food undergoes in the body are due to oxidation, just as combustion outside the body is an oxidation. Thus a food may be said to have a heat value, and since heat and work are convertible terms, the heat value may be taken as an energy value. In measuring food energy use is made of a Standard called a Calorie. A Calorie is the amount of heat required to raise 1 litre of water 1° C. or 1 pound of water 4° Fahr. Without argument it may be said that a great number of careful experiments and observations prove that the oxidation of food in the tissues liberates precisely the same amount of energy as its combustion outside the body, and that the heat value of one gramme of each of the three chief nutritive constituents of food when taken into the tissues is as follows:

1 gramme proteid furnishes	4.1	Calories.
1 gramme fat furnishes	9.3	"
1 gramme carbohydrate furnishes...	4.1	"

3. *Physiological*—This test aims at finding out whether the food taken is easily digested, or to what extent it is absorbed. This is a check on the physical test because obviously sawdust or vaseline might pass the chemical or physical tests but fail to be digested or absorbed. Roughly we may say that this test is made by measuring the intake of the various constituents of a diet and deducting the amount excreted unchanged in the faeces. It would appear that caution should be exercised in interpreting this test because it is possible that in excessive diets a proportion of food may actually be absorbed, changed and excreted without being utilized in the tissues, but on the contrary that it may have a deleterious effect because of the excessive work thrown on the organs of assimilation and excretion. For any given diet to show a high physiological test it is essential that the food be well cooked and well served. Care should be taken to masticate it properly, and to remove as far as possible any mental or physical inhibition of digestive function. It is estimated that from 10 to 25 per cent. of food is wasted, and it is questionable whether lack of care in cooking or serving is ever economical.

4. *Economic Test*—This consists in computing the cost of a diet containing the necessary nutritive quantities of food. The results of this test are very variable, depending on time and place, but in a general way it may be said that the more concentrated a diet is the more expensive it is, and that proteid and fat are relatively more costly than carbohydrate.

Many useful investigations into the question of diets have been undertaken in late years, that of Benedict (1) being one of the most recent. The work of Atwater (2) in America is also very comprehensive, while Blackham in England has written an illuminating article on the

"Feeding of the Soldier." (3) Perhaps the most remarkable and original work is that of Professor Chittenden (4) of Yale, who in his work entitled "The Nutrition of Man," published in 1907, sought to prove by the results of experiments on himself and others that it was not only possible to live and work on a diet containing about one-half of protein ordinarily consumed; but that the subject of the restricted dietary was better physically and mentally is the result of his abstinence.

In the Toronto Hospital for Insane a study was undertaken to determine whether the diets were sufficient or well balanced. In making our estimations Atwater's tables of food values as given in Sutherland's (5) "Diet in Health and Disease" was used. The public and private ward diets on two successive days, March 14th and March 15th, 1913, were analyzed. The amounts given are those actually provided for and consumed by the patients on these days. For the sake of clearness the results are tabulated, and to permit comparison a table has been constructed from various sources.

TABLE No. 1.

Private—Meat.	ozs.	Calories of Protein.	Calories of Fat.	Calories of Carbohydrates.	Total.
Steak	7.	303	265	...	568
Bacon	5.	144	507	...	651
Bread	12.	132	18	761	911
Butter	2.	5	445	...	450
Sugar	3.5	...	...	332	332
Tea	.5	...	...	...	...
Coffee	.5	...	...	...	...
Oatmeal	1.25	26	11	104	141
Tapioca	.75	...	...	77	77
Prunes	1.25	3	...	106	109
Potatoes	12.	31	...	257	288
Turnips	12.	19	...	118	137
Milk	8.	42	54	66	162
		705	1,300	1,821	3,826
Total in grammes		170	141	444	

TABLE No. 2.

Private—Fish.	ozs.	Calories of Protein.	Calories of Fat.	Calories of Carbo-hydrates.	Total.
Fish (Herring)	10.	302	110	...	412
Eggs	2.1	53	41	...	94
Bread	12.	132	18	761	911
Butter	2.	5	445	...	450
Sugar	3.5	...	...	332	332
Tea	.5	...	...	...	...
Coffee	.5	...	...	...	...
Oatmeal	1.25	26	11	104	141
Tapioca	.75	...	...	77	77
Prunes	1.25	3	...	106	109
Potatoes	12.	31	...	257	288
Cabbage	12.	23	4	82	109
Milk	16.	85	108	132	325
		660	737	1,851	3,248
Total in grammes.....		160	79	451	

TABLE No. 3.

Public—Meat.	ozs.	Calories of Protein.	Calories of Fat.	Calories of Carbo-hydrates.	Total.
Steak	7.	303	265	...	568
Bread	15.	165	23	950	1,138
Butter	1.5	4	384	...	388
Sugar	1.75	...	...	166	166
Tea	.25	...	...	...	...
Cornmeal	1.	8	1	94	103
Rice	.75	7	...	69	76
Figs	1.25	6	...	109	115
Potatoes	8.	23	...	193	216
Turnips	12.	19	...	118	137
Milk	16.	85	108	132	325
		620	781	1,831	3,232
Total in grammes.....		150	84	447	

TABLE No. 4.

Public—Fish.		Calories of Protein.	Calories of Fat.	Calories of Carbohydrates.	Total.
	ozs.				
Fish	7.	211	77	...	288
Bread	15.	165	23	950	1,138
Butter	1.5	4	384	...	388
Sugar	1.75	...	...	166	166
Tea	.25	...	...	...	...
Oatmeal	1.25	26	11	104	141
Tapioca	.75	...	...	77	77
Prunes	1.25	3	...	106	109
Potatoes	8.	23	...	193	216
Cabbage	12.	23	4	82	109
Milk	16.	85	108	132	325
		540	607	1,810	2,957
Total in grammes.....		131	65	441	

TABLE No. 5.

	Grammes Protein.	Grammes Fat.	Grammes Carbohydrate.	Total. Calories.
(1) Benedict's average dietaries:—				
(*a*) People with active muscular work—Lumbermen, athletes, etc.	175	...	...	5,500
(*b*) People with ordinary muscular work—Carpenters, farmers, etc.	115	...	...	3,300
(*c*) People with light muscular work—Professional and business men, clerks, etc.	100	...	...	2,700
(2) Labourers of various countries:—				
(*a*) Sweden (Hultgen and Landergren)	189	110	714	4,725
(*b*) Russia (Erismann)	132	80	584	3,680
(*c*) Germany (Prausnitz) ...	139	113	677	4,395
(*d*) Austria (Ohlmuller)	159	62	977	5,235
(*e*) United States (Atwater).	154	227	626	5,275
(3) Army Diets active:—				
(*a*) England (Playfair)	144	83	631	3,950
(*b*) United States (Atwater).	164	97	600	4,060
(4) Atwater's Table of 53 American Studies for different classes	103	138	436	3,500
(5) Chittenden's	70	...	...	2,100
(6) Toronto Hospital for Insane:—				
Private Meat	170	141	444	3,826
Private Fish	160	79	451	3,248
Public Meat	150	84	447	3,232
Public Fish	131	65	441	2,957

It would appear from the analysis that the diets provided are abundant as measured by the chemical test, that is, that the Caloric value is adequate. The proteid content is above the average and out of proportion of the other constituents. To remedy this it would be necessary to lessen the flesh food and increase the vegetable and dairy products.

References—

(1) American Journal of Physiology, August, 1906.
(2) Hutchinson—Food and Principles of Dietetics.
(3) British Medical Journal, August 8, 1908.
(4) Chittenden—Nutrition of Man, 1907.
(5) Sutherland—Diet in Health and Disease, 1909.

REPORT OF TWO CASES OF PNEUMONIA.

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Case 1. Male Aet. 47.

January 18th.—Patient complaining of cough and pain in right side of chest. Temp. 103, pulse 94, respiration 38. On examination there is found an area of dullness over the base of right lung. On auscultation there is a slight friction rub in right axilla, breath sounds are suppressed over area of dullness.

January 19th.—Temp. 102⅖, pulse 90, resp. 40. On examination area of dullness has increased in size and now occupies an area corresponding to lower lobe of right lung. There is increased frenitus and tubular breathing over this area. Patient has a troublesome cough and expectorates rusty tenacious sputum.

January 20th.—Temp. 102, pulse 98, resp. 40. Condition fair. Pneumococcus demonstrated in preparation

from sputum. For the next few days the course of the disease was uneventful showing nothing noteworthy.

January 25th.—Temp. 98 1/5, pulse 84, resp. 24. Attention was called to left knee by attendant, who explained that the patient had been out of bed the previous evening and had fallen on knees. On examination there is found a large, tender fluctuant mass covering anterior and lateral aspects of left knee. Patella is not palpable and swelling does not follow the shape of a distended synovial cavity. It was a first thought that this was an infection of the synovial cavity, but the fact that the patella can not be felt and the synovial cavity apparently not distended, led to the diagnosis of peri-articular abscess, probably of pneumococcal origin.

Operation: A linear incision 2 inches long was made over anterior aspect of tumor. An abscess cavity was opened from which about four ounces of pale greenish-yellow pus escaped. Pus was without odor. The cavity was explored with finger, but no communication with the joint cavity would be made out. There were numerous loculi in cavity, which were broken down, a drainage tube of rubber was inserted and secured with a suture. Bichloride dressing applied. Examination of direct smear of pus showed the presence of typical gram-positive diplococci of pneumonia and subsequent culture on blood serum gave the same results.

January 26.—Temp., pulse and respiration normal. Wound draining freely.

January 28th.—A counter opening was made on the inner side of knee at most dependent part of cavity to improve drainage.

January 30th.—Discharge small in amount. Wound healing. The further course was uneventful, the wound healing up rapidly and completely.

Case 2. Female Aet. 22.

January 24th.—Patient complaining of severe headache and vague pains all over body this morning. Temp.

103, pulse 124, resp. 38. On examination there is found an area of diminished resonance, in lower half of left chest. Location of dull area corresponds to lower lobe of left lung. There is bronchial breathing, increased fremitus, etc., over this area. At 11 p.m. was called to see patient who was suffering intense pain in both legs and thighs. On examination, both knee reflexes were abolished, there was tenderness of calf muscles and of muscular bellies in thighs, and general hyperasthesia of skin of both legs. No areas of anaesthesia could be made out. Patient cannot move legs, but is very sick and does not respond to questions, complaining only of the pain. Pain is continuous in character with paroxysms of greater intensity during which the patient cries out. No relief was obtained by supporting the bed clothes by means of a cradle, nor by sedatives. Morphia was withheld.

January 25th.—Temp. 102, pulse 108, reps. 36. Patient has been vomiting this morning. Pain in legs still severe. Patient very sick, breathing rapid and shallow.

January 26th.—Temp. 101, pulse 118, resp. 38. Patient has severe attack of epistaxis last night, condition this morning about the same. Is not complaining so much of pain, as of a feeling of stiffness in legs.

January 27th.—Temp. 100, pulse 120, resp. 34. Patient appears to be somewhat improved this morning. Pain has entirely disappeared from legs, and she says that legs feel as well as ever. The further course of the disease was uneventful. Patient passed crisis on January 31st. Convalescence was rapid and complete.

The above two cases present features uncommon in pneumonia. Case No. 1 illustrates a condition rarely seen, i.e., a superficial abscess due to pneumococcus. What the percentage of pneumonias which give rise to abscess is, it is impossible to say, as a careful survey of the literature of the Academy of Medicine, Toronto, did not bring to light any information on the subject, not one case being recorded, but I may insert a sentence from

Albutt's System, which says: "Abscess and suppuration in bone, muscle and subcutaneous tissues have been observed." That abscess is not more common, is a fact worthy of comment as the pneumococcus is essentially a pyogenic organism and is found extensively in the peripheral blood during an attack of pneumonia. One would think that it would be exceedingly prone to light up local inflammations, especially if there was any area of lowered vitality, as was probable in the case cited above.

In Case No. 2, the peculiarity is that the symptoms from the outset are referred to the nervous system, headache, backache, and later the severe pain in legs. In a case of this sort one is apt to be misled in the diagnosis unless a careful physical examination is made. Cases resembling this are occasionally met with in the literature, but are far from common. The severity of the pain in the legs is worthy of consideration. What the cause of this pain is, I am not prepared to state, but I would suggest that it is due to the toxins in the blood acting on the nerve endings, thus producing pain. If it were due to neuritis, one would not expect the rapid disappearance of symptoms which took place in this case, and neuritis when it occurs in pneumonia, usually manifests itself during convalescence, not during the attack.

The following is a brief summary of the complications of pneumonia and their incidence:—

Gangrene of the lung, about 0.5 per cent. Abscess of the lung is more rare than gangrene (no statistics), and is usually discovered at autopsy. Pleurisy with effusion, 1.6 per cent. Empyema variously estimated at from 3 to 7 per cent. Pericarditis, less than 1 per cent. Endocarditis, 1 per cent. Peritonitis, 0.3 per cent. Arthritis, 0.1 per cent. Meningitis, 0.1 per cent. Septicaemic nephritis, 1 per cent. Thrombosis, 1 per cent. Otitis Media, 0.5 per cent. Severe Epistaxis, 2.5 per cent. Jaundice is sometimes seen. Intestinal paresis is rare. Peripheral neuritis sometimes follows pneumonia.

EASTERTIDE.

"Abide with us for it is towards evening and the day is far spent."

Written for the BULLETIN by a Patient at Hospital for Insane, Brockville, Ontario.

Unto Thy tomb in old Jerusalem,
All nations wend their way,
To hear once more the Angel guard proclaim,
Thy resurrection day,
Ages have circled past Thy sepulchre,
And still mankind keeps ward,—
Sweet spring flowers still lift up their chalices
To greet Thee, Risen Lord!

We see Thee in the wonder of that dawn,
Beneath the Olive's shade;
We hear with Mary Thine "All Hail" resound,
Along the garden glade—
Of Death's great mystery, newly risen One,
We fain would question Thee,
For in our ears the mighty billows surge
Of Thine Eternity.

Our dear ones smile and leave us, one by one,
To cross that swelling tide,
But through the silence never hand comes forth
To draw the veil aside;,
Science has failed to give us word of those
Who have past out from hence,
Nothing we know, but see on every side
Thy great beneficence.

Thou, who dost hold the keys of death and hell
Bid anxious thought be still,
Let peace descend this resurrection day
Our yearning souls to fill—
"Abide with us" as with Thy journeying friends
Who to Emimans went;
"It is towards evening" and the twilight falls,
"Life's day is almost spent."

—L. C. G.

Eastertide, 1913.

BOOK REVIEW.

Collected papers by the Staff of St. Mary's Hospital, Mayo Clinic, 1912, pages 600. Published by W. B. Saunders Company, Philadelphia, and J. F. Hartz Co., Toronto.

The title of this volume, as its name implies, is a collection of papers, fully illustrated, by members of the staff of St. Mary's Hospital, Rochester, Minn. The papers are grouped under such headings as Alimentary Canal, Hernia, Genito-Urinary, Ductless Glands, Thorax and Extremities, Technic, General Papers, and an interesting memorial notice of Dr. William Worrell Mayo, the father, whose sons have brought such lustre to American surgery. The contributors are not only Dr. William J. Mayo and Dr. Charles H. Mayo, but all their coworkers at Rochester are represented. The subjects are treated in a manner that will secure careful attention and the general practitioner, as well as the surgeon will find in this splendid collection of papers what may be regarded as the most modern expressions of thought, regarding surgical work. This volume is certain to receive a cordial welcome to the library of medical men everywhere who desire to keep in touch with the latest and best.

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